

Patricia M. French
Senior Attorney



300 Friberg Parkway
Westborough, Massachusetts 01581
(508) 836-7394
(508) 836-7039 (facsimile)
pfrench@nisource.com

July 14, 2005

BY OVERNIGHT DELIVERY AND E-FILE

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

Re: Bay State Gas Company, D.T.E. 05-27

Dear Ms. Cottrell:

Enclosed for filing, on behalf of Bay State Gas Company ("Bay State"), please find Bay State's responses to the following Information Requests:

From the Attorney General:

AG-8-25 AG-9-28 AG-9-32 AG-9-52 AG-22-44 (Bulk Supp.)
AG-25-4

From the Department:

DTE-11-6 DTE-18-03 DTE-18-04 DTE-18-05 DTE-18-06 DTE-18-07
DTE-18-08

From the UWUA:

UWUA-1-5 (Bulk Supp.)

Please do not hesitate to telephone me with any questions whatsoever.

Very truly yours,

Patricia M. French

cc: Per Ground Rules Memorandum issued June 13, 2005:

Paul E. Osborne, Assistant Director – Rates and Rev. Requirements Div. (1 copy)

A. John Sullivan, Rates and Rev. Requirements Div. (4 copies)

Andreas Thanos, Assistant Director, Gas Division (1 copy)

Alexander Cochis, Assistant Attorney General (4 copies)

Service List (1 electronic copy)

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE
EIGHTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL
D. T. E. 05-27

Date: July 14, 2005

Responsible: Earl M. Robinson, Consultant

AG-8-25 Data - Regarding reference at page 8 and elsewhere in Mr. Robinson's direct testimony to "future expectations" obtained from the Company, please provide all written documentation associated with each future expectation referenced, including but not limited to inquiries by the depreciation consultant and responses from the Company. The information should identify which accounts the information corresponded to and how each item of information affected the selection of any mortality characteristic, whether life or salvage related, and the degree to which it impacted the ultimate level of mortality characteristics proposed in the depreciation study. Finally, provide all underlying support and justification, including all workpapers, assumptions, considerations, and material reviewed and/or relied corresponding to each future expectation.

Response: No such reference can be found on Page 8 of Mr. Robinson's direct testimony. A reference was found to future expectations on page 9 line 14 of the direct testimony.

Such expectations relate to how property is currently being operated and how such operations affect the accounting activity being generated and how current and future operations may change from the experience of the past. As a result of discussions with Company's management, it is anticipated for the most part, excluding the Company's Bare Steel program (and potential impact of the Company's Cast Iron Mains) and its Metscan devices, it is more or less business as usual with regard to the use of the property and the anticipated service life of the Company's assets. Material changes are not envisioned and/or estimated at the present time. With regard to net salvage factors, such costs have been increasing over time and are anticipated to escalate further in future years.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE
NINTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL
D. T. E. 05-27

Date: July 14, 2005

Responsible: Joseph A. Ferro, Manager Regulatory Policy

AG-9-28 Please survey the other Massachusetts LDCs to determine what their tariff provisions and practices are regarding service to dual fuel customers. Provide a summary that includes the Company's proposal. Indicate whether there are alternative fuel inventory requirements, and whether dual fuel customers must prove they are able to actually burn the alternative fuel as needed.

Response: Please see response to DTE-7-11, and a copy of the NStar Dual Fuel Special Provision tariff is included as Attachment AG-9-28.

NSTAR GAS COMPANY

M.D.T.E. No. 451
Cancels M.D.T.E. No. 276

Page 1 of 1

DUAL FUEL SPECIAL PROVISION

APPLICABILITY

This Special Provision is applicable to any Customer taking service on any one or more of the Company's General Service rates (Rates G-41, G-42, G-43, G-51, G-52 or G-53) able to engage in Fuel Switching.

SPECIAL PROVISION

Any new or existing Customer able to use an alternate source of energy to displace purchases of gas hereunder for economic reasons ("Fuel Switching") and wishing to take gas service hereunder for either: (1) gas-fired cogeneration equipment; or (2) gas utilization equipment designed to use either gas supplied by the Company or, at the Customer's option, any alternate source of energy, whether in whole or any other part (together, "Dual Fuel Equipment"); may not take service hereunder unless such Customer has executed a service agreement in form and substance acceptable to the Company. Such service agreement shall guarantee: (1) a minimum term of service of at least one (1) year, subject to termination upon ninety (90) days written notice to the Company, and (2) a minimum annual revenue, net of commodity-related revenues from the Company's Seasonal Cost of Gas Adjustment Clause. Such minimum annual revenue shall be determined by multiplying the rate of 18.71¢ per Therm (representing the fixed costs imposed upon the Company by serving the Customer) times the most recent annual gas-related energy requirements of the Customer's Dual Fuel Equipment, adjusted to Therm equivalents of gas. "Gas-related energy requirements" shall mean both the gas and the alternate source of energy consumed by the Customer's Dual Fuel Equipment. The gas-related energy requirements of the Customer's Dual Fuel Equipment shall be determined by the Company either from available historic gas usage information or from appropriate estimates thereof, as stated in the service agreement between the Company and the Customer.

In the event that the Company wishes to apply the minimum annual revenue guarantee defined in this Special Provision, it shall review with the Customer the Customer's most recent annual gas-related energy requirements. The minimum annual revenue guarantee shall be applied during any annual period to the extent that the Customer has not taken gas service hereunder due to Fuel Switching during such annual period. The minimum annual revenue guarantee shall not be applied during such annual period to the extent that the Customer has failed to take gas service hereunder due either to mechanical failure of its Dual Fuel Equipment or to a reduction in the use of the Dual Fuel Equipment for reasons unrelated to Fuel Switching.

Issued by: Thomas J. May
President

Filed: January 31, 2003
Effective: March 1, 2003

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE
NINTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL
D. T. E. 05-27

Date: July 14, 2005

Responsible: Joseph A. Ferro, Manager Regulatory Policy

AG-9-32 Please survey the other Massachusetts LDCs to determine what their tariff provisions and practices are regarding interruptible service. Provide a summary that includes the Company's proposal. Indicate whether there are requirements that interruptible customers must be dual fueled, and if so, alternative fuel inventory requirements, and whether dual fuel customers must prove they are able to actually burn the alternative fuel during periods of mandatory interruption.

Response: The Company has not conducted any formal survey of the other Massachusetts LDCs on the matter of tariff provisions for interruptible service. However, it is the Company's understanding that all Massachusetts LDCs are complying with the Department's directive issued in D.P.U. 93-141-A, at 47 for any new interruptible service contracts executed after the issuance date of that order. Please also see response to MOC-3-4.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE
NINTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL
D. T. E. 05-27

Date: July 14, 2005

Responsible: Joseph A. Ferro, Manager Regulatory Policy

AG-9-52 Please provide copies of all special contracts that are currently in force, copies of the original contracts with each special contract customer and copies of all amendments to these contracts. Provide a code for each special contract that corresponds to the data provided in the following request response.

Response: Please see confidential response to AG-1-99. Also, please see response to RR-AG-24.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE
TWENTY-SECOND SET OF INFORMATION REQUESTS FROM THE ATTORNEY
GENERAL
D. T. E. 05-27

Date: July 14, 2005

Responsible: James L. Harrison, Consultant (Cost Studies)
Joseph A. Ferro, Manager Regulatory Policy

BULK ATTACHMENTS – SUPPLEMENTAL RESPONSE

AG-22-44 Refer to the Company's response to. Please provide revised exhibits to reflect the correction to the special contract revenues discussed in this response. Include an explanation of how each exhibit and schedule is affected. This should include the Company's proposed cost of service, the allocated cost of service studies, development of the rate design bill determinants and the individual class proposed rates.

Response: As discussed in the Company's response to AG-9-2, the Company's original filing understated Special Contract revenues by \$404,852. Attachment AG-22-44 (1), which is a bulk document and will be provided in a supplement response, provides a revised version of the Delivery Component of the accounting class cost of service study. The special contract revenues were increased on page 8-1, Line 4 resulting in a lower revenue deficiency and a lower cost to serve to all rate classes.

Attachment AG-22-44 (2) presents a revised marginal cost study. As the marginal cost study results suggest, in the long run, changes in contract revenues have virtually no impact on the cost to serve the remaining customers. Recall that the marginal cost study revenue requirements are driven only by costs to serve and are not constrained by allowed revenue requirement that include an offset for special contract revenues.

Attachment AG-22-44 (3) summarizes the class cost of service study results for use in rate design. Rate design billing determinants exclude special contract customers' billing units, so the billing units are un-impacted by a change in special contract revenues.

Lastly, Attachment AG-22-44 (4) presents the results of a revised rate design. As the revised rate design demonstrates, the minor change to revenue requirements has an extremely small impact on the proposed rates.

SUPPLEMENTAL RESPONSE

See Attachment AG-22-44 (1), which is being provided as noted above.

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

SUMMARY OF RESULTS

DEVELOPMENT OF RATE BASE

	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Gas Plant in Service	735,344,583	446,150,209	40,367,793	1,513	50,799,344	63,732,988	44,970,985
2 Less: Depreciation Reserve	275,704,353	175,018,447	18,817,678	425	19,681,676	20,099,758	14,069,897
3 Net Gas Plant in Service	459,640,230	271,131,762	21,550,116	1,088	31,117,668	43,633,230	30,901,088
ADD:							
4 Cash Working Capital	9,959,014	6,203,184	684,895	26	705,334	796,996	498,884
5 Materials & Supplies	3,408,069	2,065,294	186,491	7	235,452	295,926	209,737
6 Total Additions to Net Plant	13,367,083	8,268,479	871,385	33	940,786	1,092,922	708,621
DEDUCT:							
7 Deferred Taxes	83,385,620	50,598,448	4,583,147	171	5,761,591	7,229,067	5,090,152
8 Unamortized Pre-1971 ITC	10,886	6,605	598	0	752	943	666
9 Customer Contributions	11,088	7,703	1,165	0	876	503	253
10 Customer Deposits	3,090,784	37,964	1,551	0	1,006,862	935,120	247,259
11 Unclaimed Checks	254,812	159,015	17,214	1	17,885	20,302	13,020
12 Total Deductions to Net Plant	86,753,189	50,809,734	4,603,675	172	6,787,965	8,185,936	5,351,349
13 Total Rate Base	386,254,124	228,590,507	17,817,826	948	25,270,489	36,540,215	26,258,360

DEVELOPMENT OF RETURN

14 Revenues from Sales of Gas	144,062,908	94,869,536	4,827,390	394	9,947,841	11,991,843	7,093,023
15 Other Operating Revenues	15,918,789	8,390,713	204,245	59	1,034,410	1,945,716	1,494,897
16 Total Gas Operating Revenues	159,981,697	103,260,249	5,031,635	453	10,982,251	13,937,559	8,587,921

LESS: OPERATING EXPENSES

17 Operation & Maintenance Expense	86,286,405	53,748,281	5,956,449	222	6,115,577	6,895,650	4,314,731
18 Depreciation & Amortization Expense	34,563,572	21,542,084	2,288,766	54	2,472,016	2,756,481	1,797,485
19 Taxes Other Than Income	9,775,438	5,938,109	542,618	20	676,351	850,898	585,925
20 Interest on Customer Deposits	72,506	891	36	0	23,620	21,937	5,800
21 Income Taxes	7,061,245	6,021,052	(1,678,463)	51	374,824	920,799	438,881
22 Total Operating Expenses	137,759,166	87,250,416	7,109,407	347	9,662,388	11,445,765	7,142,823

23 Operating Income	22,222,531	16,009,834	(2,077,772)	107	1,319,863	2,491,794	1,445,098
24 Rate of Return	5.75%	7.00%	-11.66%	11.24%	5.22%	6.82%	5.50%
25 Index Rate of Return	1.000	1.217	-2.027	1.953	0.908	1.185	0.957

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 1 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF RATE BASE-2

GAS PLANT IN SERVICE

INTANGIBLE PLANT

		TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	301 Organization							
2	Organization	4,320,082	2,621,092	237,157	9	298,441	374,425	264,200
3	Adj Organization	(3,648,436)	(2,213,589)	(200,286)	(8)	(252,043)	(316,213)	(223,125)
4	Total Account 301	671,646	407,503	36,871	1	46,399	58,212	41,075
5	303 Misc. Intangible Plant	33,253,272	20,261,541	1,898,719	65	2,310,580	2,935,102	1,879,353
	Total Intangible Plant	33,924,918	20,669,043	1,935,590	66	2,356,979	2,993,314	1,920,428
PRODUCTION PLANT								
6	304 Land & Land Rights							
7	LNG Related							
8	LPG Related	75,571	39,982	767	0	4,553	9,258	7,245
9	LNG & LPG Related	29,429	15,569	299	0	1,773	3,605	2,821
	Total Account 304	13,001	6,878	132	0	783	1,593	1,246
10	305 Structures & Improvements	118,001	62,429	1,197	0	7,109	14,457	11,312
11	LNG Related							
12	LPG Related	320,307	169,461	3,249	1	19,297	39,242	30,706
13	LNG & LPG Related	185,559	98,171	1,882	1	11,179	22,733	17,788
14	Total Account 305	171,654	90,815	1,741	1	10,341	21,030	16,455
15	311 L.P. Gas Equipment	677,520	358,447	6,872	3	40,817	83,004	64,950
16	320 Other Equipment	1,241,073	656,599	12,589	5	74,768	152,046	118,974
17	LNG Related							
18	LPG Related	165,211	87,406	1,676	1	9,953	20,240	15,838
19	LNG & LPG Related	50,257	26,589	510	0	3,028	6,157	4,818
20	Total Account 320	18,836	9,965	191	0	1,135	2,308	1,806
21	321 L.N.G. Equipment	234,304	123,960	2,377	1	14,116	28,705	22,461
22	Total Production Plant	4,412,427	2,334,429	44,757	17	265,825	540,575	422,993
		6,683,325	3,535,866	67,792	26	402,634	818,788	640,691

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 3 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOC

HIGH WINTER
LRG HI ANNUAL
G-43 & T-43

LOW WINTER
LOW ANNUAL
G-50 & T-50

LOW WINTER
MED ANNUAL
G-51 & T-51

LOW WINTER
HIGH ANNUAL
G-52 & T-52

LOW WINTER
LRG HI ANNUAL
G-53 & T-53

DEVELOPMENT OF RATE BASE-2

GAS PLANT IN SERVICE

INTANGIBLE PLANT

1	301 Organization	PLANT	48,204	57,322	116,878	111,775	190,578
2	Adj Organization	PLANT	(40,710)	(48,410)	(98,707)	(94,397)	(160,948)
3	Total Account 301		7,494	8,912	18,171	17,378	29,629
4	303 Misc. Intangible Plant	LABOR	350,882	473,745	946,868	809,631	1,386,788
5	Total Intangible Plant		358,376	482,657	965,039	827,009	1,416,417

PRODUCTION PLANT

6	304 Land & Land Rights	DEMLNG	1,518	643	2,592	3,017	5,998
7	LNG Related	DEMLPG	591	251	1,009	1,175	2,336
8	LPG Related	PLT304L	261	111	446	519	1,032
9	LNG & LPG Related		2,370	1,005	4,047	4,710	9,365
	Total Account 304						
10	305 Structures & Improvements	DEMLNG	6,434	2,727	10,984	12,786	25,421
11	LNG Related	DEMLPG	3,727	1,580	6,363	7,407	14,727
12	LPG Related	PLT305L	3,448	1,461	5,886	6,852	13,623
13	LNG & LPG Related		13,609	5,768	23,234	27,045	53,771
14	Total Account 305	DEMLPG	24,929	10,566	42,559	49,541	98,497
	311 L.P. Gas Equipment						
15	320 Other Equipment	DEMLNG	3,319	1,407	5,665	6,595	13,112
16	LNG Related	DEMLPG	1,009	428	1,723	2,006	3,989
17	LPG Related	PLT320L	378	160	646	752	1,495
18	LNG & LPG Related		4,706	1,995	8,035	9,353	18,595
19	Total Account 320		88,630	37,566	151,312	176,135	350,188
20	321 L.N.G. Equipment	DEMLNG	134,244	56,899	229,186	266,784	530,416
	Total Production Plant						

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF RATE BASE CONT-3

GAS PLANT IN SERVICE CONT

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DISTRIBUTION PLANT									
1	364 Land & Land Rights	DISTR	219,041	115,885	2,222	1	13,196	26,835	20,998
2	365 Right of Way	DISTR	79,051	41,823	802	0	4,762	9,685	7,578
3	366 Structures & Improvements	DISTR	2,108,612	1,115,578	21,388	8	127,032	258,330	202,140
4	367 Gas Mains								
5	Gas Mains - Bare Steel	DISTR	2,564,359	1,351,404	25,910	10	153,886	312,940	244,871
6	Gas Mains - Joint Clamping	DISTR	20,020,721	10,592,119	203,078	78	1,206,139	2,452,779	1,919,268
7	Gas Mains - Cast Iron	DISTR	5,690,941	3,010,837	57,725	22	342,848	697,209	545,557
8	Gas Mains - Cathodic Protection	DISTR	8,274,626	4,377,756	83,933	32	498,501	1,013,741	793,240
9	Gas Mains - Coated Steel	DISTR	146,116,729	77,304,202	1,482,119	570	8,802,732	17,901,054	14,007,349
10	Gas Mains - Plastic	DISTR	126,075,826	66,701,405	1,278,837	491	7,595,377	15,445,803	12,086,146
11	Adj Gas Mains - Plastic	DISTR	1,053,621	557,426	10,687	4	63,475	129,081	101,004
12	Total Account 367		309,786,822	163,895,149	3,142,289	1,207	18,662,957	37,952,606	29,697,435
13	368 Compressor Station Equipment	DISTR	327,265	173,142	3,320	1	19,716	40,094	31,373
14	369 Meas. & Reg. Station Equipment	DISTR	12,355,156	6,536,592	125,323	48	744,330	1,513,655	1,184,416
15	380 Gas Services	CUST380	228,746,364	166,042,757	24,984,666	0	17,876,084	6,169,869	4,778,556
16	381 Gas Meters	CUST381	24,915,974	15,188,301	2,339,184	0	2,023,106	2,385,861	700,742
17	382 Meter Installations	CUST382	45,198,411	27,552,090	4,243,357	0	3,669,983	4,328,031	1,271,169
18	383 Gas Regulators	CUST383	13,612,047	8,297,644	1,277,938	0	1,105,260	1,303,439	382,828
19	386 Other Property on Cust's Premises								
20	Gas Water Heaters	CUST3860	14,053,382	7,435,052	142,549	55	846,639	1,721,708	1,347,215
21	Cascade Diamond Boilers	CUST3862	569,752	301,432	5,779	2	34,324	69,801	54,619
22	Conversion Burners	CUST3863	7,835,153	4,145,249	79,475	31	472,025	959,900	751,110
23	Total Account 386		22,458,288	11,881,733	227,803	88	1,352,989	2,751,410	2,152,944
24	387 Other Equipment	DISTR	1,719,559	909,746	17,442	7	103,594	210,667	164,844
25	Total Distribution Plant		661,526,587	401,750,440	36,385,734	1,361	45,703,010	56,950,481	40,595,023
TRANSMISSION PLANT									
26	379 Other Equipment	DISTR	510,252	289,953	5,176	2	30,740	62,512	48,915
27	Total Transmission Plant		510,252	289,953	5,176	2	30,740	62,512	48,915

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 5 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF RATE BASE CONT-3

GAS PLANT IN SERVICE CONT

				LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
			HIGH WINTER LRG HI ANNUAL G-43 & T-43				
		ALLOC					
DISTRIBUTION PLANT							
1	364 Land & Land Rights	DISTR	4,400	1,865	7,511	8,744	17,384
2	365 Right of Way	DISTR	1,588	673	2,711	3,156	6,274
3	366 Structures & Improvements	DISTR	42,355	17,952	72,309	84,171	167,348
4	367 Gas Mains						
5	Gas Mains - Bare Steel	DISTR	51,308	21,747	87,595	101,965	202,724
6	Gas Mains - Joint Clamping	DISTR	402,146	170,449	686,554	799,185	1,588,925
7	Gas Mains - Cast Iron	DISTR	114,311	48,451	195,155	227,170	451,656
8	Gas Mains - Cathodic Protection	DISTR	166,208	70,447	283,755	330,306	656,708
9	Gas Mains - Coated Steel	DISTR	2,934,970	1,243,984	5,010,662	5,832,673	11,596,414
10	Gas Mains - Plastic	DISTR	2,532,419	1,073,363	4,323,416	5,032,682	10,005,887
11	Adj Gas Mains - Plastic	DISTR	21,164	8,970	36,131	42,058	83,620
12	Total Account 367		6,222,526	2,637,410	10,623,268	12,366,039	24,585,934
13	368 Compressor Station Equipment	DISTR	6,574	2,786	11,223	13,064	25,973
14	369 Meas. & Reg. Station Equipment	DISTR	248,172	105,187	423,685	493,192	980,555
15	380 Gas Services	CUST380	203,287	3,565,851	2,310,269	1,922,133	892,892
16	381 Gas Meters	CUST381	49,813	647,509	1,022,284	382,655	176,519
17	382 Meter Installations	CUST382	90,363	1,174,602	1,854,457	694,148	320,211
18	383 Gas Regulators	CUST383	27,214	353,746	558,492	209,051	96,435
19	386 Other Property on Cust's Premises						
20	Gas Water Heaters	CUST3860	282,283	119,645	481,921	560,982	1,115,333
21	Cascade Diamond Boilers	CUST3862	11,444	4,851	19,538	22,743	45,218
22	Conversion Burners	CUST3863	157,381	66,706	268,685	312,763	621,829
23	Total Account 386		451,108	191,202	770,144	896,488	1,782,380
24	387 Other Equipment	DISTR	34,540	14,640	58,967	68,641	136,471
25	Total Distribution Plant		7,381,938	8,713,423	17,715,320	17,141,481	29,188,376
TRANSMISSION PLANT							
26	379 Other Equipment	DISTR	10,249	4,344	17,498	20,368	40,496
27	Total Transmission Plant		10,249	4,344	17,498	20,368	40,496

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF RATE BASE CONT-4

GAS PLANT IN SERVICE CONT

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
GENERAL PLANT									
1	389 Land & Land Rights	LABOR	165,740	100,987	9,464	0	11,516	14,629	9,367
2	390 Structures & Improvements	LABOR	7,024,876	4,280,325	401,111	14	488,118	620,051	397,020
3	Total General Plant		7,190,616	4,381,312	410,575	14	499,635	634,680	406,387
GENERAL PLANT (Equipment)									
4	391 Office Equipment	LABOR	5,691,965	3,468,170	325,004	11	395,502	502,402	321,689
5	Office IT Equipment	LABOR	5,292,227	3,224,605	302,179	10	367,727	467,119	299,097
6	Total Account 391		10,984,193	6,692,775	627,183	21	763,229	969,520	620,786
7	392 Transportation Equipment	LABOR	2,273,324	1,385,158	129,804	4	157,960	200,655	128,480
8	393 Stores Equipment	LABOR	48,545	29,579	2,772	0	3,373	4,285	2,744
9	394 Tools, Shop & Garage Equipment	LABOR	1,777,361	1,082,963	101,485	3	123,499	156,879	100,450
10	396 Power Operated Equipment	LABOR	390,903	238,181	22,320	1	27,162	34,503	22,092
11	397 Communication Equipment	LABOR	12,183,123	7,423,295	695,641	24	846,536	1,075,344	688,545
12	Communications Equip & Meiscan	LABOR	(5,065,440)	(3,086,421)	(289,230)	(10)	(351,968)	(447,101)	(286,280)
13	Communications Equip Meiscan Adj	PLT381	644,449	392,844	60,503	0	52,327	61,710	18,125
14	Communications Equip Meiscan	PLT381	2,248,171	1,370,442	211,065	0	182,545	215,277	63,228
15	Communications Equip ERT/ITRON		10,010,304	6,100,159	677,978	14	729,440	905,229	483,618
16	Total Account 397		24,257	14,780	1,385	0	1,685	2,141	1,371
17	398 Miscellaneous Equipment	LABOR	25,508,886	15,543,596	1,562,927	44	1,806,348	2,273,213	1,359,541
18	Total General Plant (Equipment)		735,344,583	446,150,209	40,367,793	1,513	50,799,344	63,732,988	44,970,985

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 7 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
HIGH WINTER LRG HI ANNUAL G-43 & T-43				

ALLOC

DEVELOPMENT OF RATE BASE CONT-4

GAS PLANT IN SERVICE CONT

GENERAL PLANT

1 389 Land & Land Rights					6,912
2 390 Structures & Improvements	2,361	4,719	4,035		292,964
3 Total General Plant	100,080	200,029	171,038		299,876
	102,442	204,749	175,073		

GENERAL PLANT (Equipment)

4 391 Office Equipment	81,091	162,075	138,585	237,377
5 Office Equipment	75,396	150,693	128,852	220,706
6 Total Account 391	156,487	312,769	267,437	458,083
7 392 Transportation Equipment	32,387	64,732	55,350	94,806
8 393 Stores Equipment	692	1,382	1,182	2,025
9 394 Tools, Shop & Garage Equipment	25,321	50,609	43,274	74,123
10 396 Power Operated Equipment	5,569	11,131	9,517	16,302
397 Communication Equipment				
11 Communications Equip & Metscan	173,568	346,907	296,627	508,083
12 Communications Equip Metscan Adj	(72,165)	(144,235)	(123,330)	(211,248)
13 Communications Equip Metscan	16,748	26,441	9,897	4,566
14 Communications Equip ERT/ITRON	58,425	92,241	34,527	15,927
15 Total Account 397	176,575	321,354	217,721	317,327
16 398 Miscellaneous Equipment	346	691	591	1,012
17 Total General Plant (Equipment)	397,377	762,667	595,072	963,677

18 Total Gas Plant In Service

19,025,787

32,439,258

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF RATE BASE CONT-5

DEPRECIATION RESERVE

INTANGIBLE PLANT RESERVE

		TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	301 Organization							
2	Adj Organization	3,374,852	2,047,599	185,267	7	233,143	292,501	206,394
3	Total Account 301	(2,862,002)	(1,736,442)	(157,114)	(6)	(197,714)	(248,052)	(175,030)
4	303 Misc. Intangible Plant	512,850	311,157	28,154	1	35,429	44,449	31,364
5	Total Intangible Plant Reserve	18,002,476	10,969,083	1,027,918	35	1,250,889	1,588,990	1,017,434
		18,515,326	11,280,240	1,056,072	36	1,286,318	1,633,439	1,048,798
PRODUCTION PLANT RESERVE								
6	305 Structures & Improvements	443,298	234,530	4,497	2	26,706	54,309	42,496
7	311 L.P. Gas Equipment	949,410	502,293	9,630	4	57,197	116,314	91,014
8	320 Other Equipment	83,033	43,929	842	0	5,002	10,173	7,960
9	321 L.N.G. Equipment	1,089,353	576,331	11,050	4	65,628	133,459	104,430
10	Total Production Plant Reserve	2,565,094	1,357,083	26,019	10	154,533	314,255	245,900
DISTRIBUTION PLANT RESERVE								
11	365 Right of Way	1,573	832	16	0	95	193	151
12	366 Structures & Improvements	1,525,122	806,878	15,470	6	91,880	186,846	146,204
13	367 Gas Mains	79,409,611	42,012,278	805,483	310	4,783,994	9,728,631	7,612,531
14	368 Compressor Station Equipment	250,135	132,336	2,537	1	15,069	30,645	23,979
15	369 Meas. & Reg. Station Equipment	3,636,205	1,923,763	36,883	14	219,061	445,479	348,582
16	380 Gas Services	124,158,847	90,124,612	13,561,166	0	9,702,773	3,348,879	2,593,702
17	381 Gas Meters	10,092,102	6,151,953	947,476	0	819,450	966,382	283,832
18	382 Meter Installations	10,511,706	6,407,736	986,869	0	853,521	1,006,562	295,633
19	383 Gas Regulators	5,385,754	3,283,053	505,630	0	437,308	515,720	151,470
	386 Other Property on Cust's Premises							
20	Gas Water Heaters	2,962,994	1,567,595	30,055	12	178,504	363,002	284,045
21	Cascade Diamond Boilers	443,949	234,875	4,503	2	26,745	54,389	42,559
22	Conversion Burners	1,444,172	764,051	14,649	6	87,003	176,928	138,444
23	Total Account 386	4,851,115	2,566,520	49,207	19	292,253	594,320	465,048
24	387 Other Equipment	371,382	196,483	3,767	1	22,374	45,499	35,602
25	Total Distribution Plant Reserve	240,193,554	153,606,444	16,914,504	351	17,237,778	16,869,154	11,956,735

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 9 of 322

DELIVERY COMPONENTS		DEVELOPMENT OF RATE BASE CONT-5					
		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEPRECIATION RESERVE							
INTANGIBLE PLANT RESERVE							
1	301 Organization	PLT301	37,657	44,780	91,305	87,319	148,879
2	Adj Organization	PLT301	(31,935)	(37,975)	(77,430)	(74,049)	(126,255)
3	Total Account 301		5,722	6,805	13,875	13,269	22,624
4	303 Misc. Intangible Plant	PLT303	189,958	256,473	512,610	438,314	750,772
5	Total Intangible Plant Reserve		195,681	263,278	526,485	451,583	773,396
PRODUCTION PLANT RESERVE							
6	305 Structures & Improvements	PLT305	8,904	3,774	15,202	17,696	35,182
7	311 L.P. Gas Equipment	PLT311	19,070	8,083	32,557	37,898	75,349
8	320 Other Equipment	PLT320	1,668	707	2,847	3,315	6,590
9	321 L.N.G. Equipment	PLT321	21,881	9,274	37,356	43,485	86,455
10	Total Production Plant Reserve		51,524	21,838	87,963	102,393	203,576
DISTRIBUTION PLANT RESERVE							
11	365 Right of Way	PLT365	32	13	54	63	125
12	366 Structures & Improvements	PLT366	30,634	12,984	52,300	60,880	121,040
13	367 Gas Mains	PLT367	1,595,059	676,064	2,723,129	3,169,865	6,302,268
14	368 Compressor Station Equipment	PLT368	5,024	2,130	8,578	9,985	19,852
15	369 Meas. & Reg. Station Equipment	PLT369	73,039	30,957	124,693	145,150	288,584
16	380 Gas Services	PLT380	110,340	1,935,471	1,253,967	1,043,294	484,644
17	381 Gas Meters	PLT381	20,177	262,271	414,071	154,993	71,498
18	382 Meter Installations	PLT382	21,016	273,175	431,287	161,437	74,471
19	383 Gas Regulators	PLT383	10,768	139,963	220,973	82,713	38,156
20	386 Other Property on Cust's Premises						
21	Gas Water Heaters	PLT3860	59,516	25,226	101,608	118,276	235,155
22	Cascade Diamond Boilers	PLT3862	8,917	3,780	15,224	17,722	35,234
23	Conversion Burners	PLT3863	29,008	12,295	49,524	57,648	114,615
24	Total Account 386		97,442	41,301	166,355	193,646	385,004
25	387 Other Equipment	PLT387	7,460	3,162	12,736	14,825	29,474
	Total Distribution Plant Reserve		1,970,989	3,377,491	5,408,144	5,036,850	7,815,114

DELIVERY COMPONENTS		DEVELOPMENT OF RATE BASE CONT-6							
		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEPRECIATION RESERVE CONT									
TRANSMISSION PLANT RESERVE									
1	379 Other Equipment	PLT379	223,628	118,312	2,268	1	13,472	27,397	21,438
2	Total Transmission Plant Reserve		223,628	118,312	2,268	1	13,472	27,397	21,438
GENERAL PLANT RESERVE									
3	390 Structures & Improvements	PLT390	2,105,067	1,282,638	120,197	4	146,269	185,804	118,971
4	Total General Plant Reserve		2,105,067	1,282,638	120,197	4	146,269	185,804	118,971
GENERAL PLT RESERVE (Equipment)									
5	391 Office Equipment	PLT391	7,359,878	4,484,445	420,240	14	511,396	649,620	415,953
6	392 Transportation Equipment	PLT392	1,235,923	753,060	70,570	2	85,877	109,089	69,850
7	393 Stores Equipment	PLT393	(1,893)	(1,153)	(108)	(0)	(132)	(167)	(107)
8	394 Tools, Shop & Garage Equipment	PLT394	783,581	477,443	44,741	2	54,447	69,163	44,285
9	396 Power Operated Equipment	PLT396	168,030	102,382	9,594	0	11,675	14,831	9,496
10	397 Communications Equipment	PLT397O	4,398,667	2,680,150	251,158	9	305,638	388,249	248,596
11	Communications Equip & Metscan	PLT397O	(2,063,285)	(1,257,179)	(117,811)	(4)	(143,366)	(182,116)	(116,609)
12	Communications Equip Metscan Adj	PLT397M	157,481	95,997	14,785	0	12,787	15,080	4,429
13	Communications Equip Metscan	PLT397E	49,882	30,407	4,683	0	4,050	4,777	1,403
14	Communications Equip ERT/ITRON		2,542,745	1,549,375	152,815	5	179,110	225,989	137,819
15	Total Account 397		13,422	8,178	766	0	933	1,185	759
16	398 Miscellaneous Equipment	PLT398	12,101,685	7,373,730	698,618	23	843,306	1,069,709	678,055
17	Tot Gen Plt Reserve (Equipment)		275,704,353	175,018,447	18,817,678	425	19,681,676	20,099,758	14,069,897
18	Total Depreciation Reserve		459,640,230	271,131,762	21,550,116	1,088	31,117,668	43,633,230	30,901,088
19	Net Gas Plant in Service								

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53						
DEVELOPMENT OF RATE BASE CONT-6													
DEPRECIATION RESERVE CONT													
TRANSMISSION PLANT RESERVE													
1	379 Other Equipment	PLT379	4,492	1,904	7,669	8,927	17,748						
2	Total Transmission Plant Reserve		4,492	1,904	7,669	8,927	17,748						
GENERAL PLANT RESERVE													
3	390 Structures & Improvements	PLT390	22,212	29,990	59,941	51,253	87,789						
4	Total General Plant Reserve		22,212	29,990	59,941	51,253	87,789						
GENERAL PLT RESERVE (Equipment)													
5	391 Office Equipment	PLT391	77,660	104,853	209,568	179,194	306,935						
6	392 Transportation Equipment	PLT392	13,041	17,608	35,192	30,092	51,543						
7	393 Stores Equipment	PLT393	(20)	(27)	(54)	(46)	(79)						
8	394 Tools, Shop & Garage Equipment	PLT394	8,268	11,163	22,312	19,078	32,678						
9	396 Power Operated Equipment	PLT396	1,773	2,394	4,785	4,091	7,007						
10	397 Communication Equipment	PLT397O	46,414	62,666	125,249	107,096	183,441						
11	Communications Equip & Metscan		(21,771)	(29,395)	(58,751)	(50,236)	(86,047)						
12	Communications Equip Metscan Adj		315	4,093	6,461	2,419	1,116						
13	Communications Equip Metscan		100	1,296	2,047	766	353						
14	Communications Equip ERT/IITRON	PLT397E	25,057	38,660	75,007	60,045	98,863						
15	Total Account 397	PLT398	142	191	382	327	560						
16	398 Miscellaneous Equipment		125,921	174,842	347,192	292,781	497,508						
17	Tot Gen Plt Reserve (Equipment)		2,370,819	3,869,343	6,437,393	5,943,786	9,395,131						
18	Total Depreciation Reserve		5,834,288	5,887,798	13,457,066	13,082,001	23,044,126						
19	Net Gas Plant in Service												

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF RATE BASE CONT-7

ADDITIONS TO NET PLANT

		TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Cash Working Capital	0	0	0	0	0	0	0
2	Purchased Gas	9,959,014	6,203,184	684,895	26	705,334	796,996	498,884
3	Other O&M	9,959,014	6,203,184	684,895	26	705,334	796,996	498,884
	Total Cash Working Capital							
	Materials & Supplies							
4	Stores Expense Undistributed	205,330	124,686	11,287	0	14,184	17,682	12,606
5	Truck Stock	140,504	85,321	7,723	0	7,706	12,100	8,626
6	Meters Stock	42,334	25,806	3,974	0	3,437	4,054	1,191
7	Inventory-impres	210,158	127,618	11,552	0	14,518	18,098	12,902
8	Mat Management System IC Stock	2,719,413	1,651,358	149,481	6	187,858	234,189	166,951
9	Appliances & Parts	55,590	29,410	564	0	3,349	6,810	5,329
10	Other Inventory Charges	34,740	21,096	1,910	0	2,400	2,992	2,133
11	Total Materials & Supplies	3,408,069	2,065,294	186,491	7	235,452	295,926	209,737
12	Total Additions to Net Plant	13,367,083	8,268,479	871,385	33	940,786	1,092,922	708,621
	DEDUCTIONS TO NET PLANT							
	Deferred Taxes							
13	Intangible Related	5,898,382	3,593,639	336,533	12	409,798	520,435	333,897
14	Production Related	716,052	378,833	7,263	3	43,138	87,725	68,644
15	Transmission & Distribution Related	73,495,972	44,630,265	4,039,934	151	5,077,129	6,329,293	4,512,084
16	General Related	3,812,626	2,323,161	230,102	7	268,868	339,048	205,900
17	Communications Equip Metscan Adj	(537,412)	(327,450)	(30,686)	(1)	(37,342)	(47,435)	(30,373)
18	Deferred Taxes	83,385,620	50,598,448	4,583,147	171	5,761,591	7,229,067	5,090,152
19	Unamortized Pre-1971 ITC	10,886	6,605	598	0	752	943	666
20	Customer Contributions	11,088	7,703	1,165	0	876	503	253
	Customer Deposits							
21	Customer Deposits - Firm Customers	2,175,434	27,610	159	0	787,831	643,771	150,645
22	Customer Deposits - Marketers	915,350	10,355	1,392	0	219,031	291,350	96,613
23	Total Customer Deposits	3,090,784	37,964	1,551	0	1,006,862	935,120	247,259
24	Unclaimed Checks	254,812	159,015	17,214	1	17,885	20,302	13,020
25	Total Deductions to Net Plant	86,753,189	50,809,734	4,603,675	172	6,787,965	8,185,936	5,351,349
26	Total Rate Base	386,254,124	228,590,507	17,817,826	948	25,270,489	36,540,215	26,258,360

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 13 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
--	---	---	--	--

DEVELOPMENT OF RATE BASE CONT-7

ADDITIONS TO NET PLANT

1	Cash Working Capital	0	0	0	0
2	Purchased Gas	146,113	259,266	214,707	358,756
3	Other O&M	146,113	259,266	214,707	358,756
	Total Cash Working Capital				
	Materials & Supplies				
4	Stores Expense Undistributed	2,704	5,500	5,323	9,065
5	Truck Stock	1,850	3,763	3,642	6,203
6	Meters Stock	1,100	1,737	650	300
7	Inventory-Imprest	2,767	5,629	5,448	9,278
8	Mat Management System IC Stock	35,810	72,840	70,495	120,062
9	Appliances & Parts	473	1,906	2,219	4,412
10	Other Inventory Charges	457	931	901	1,534
11	Total Materials & Supplies	45,162	92,306	88,677	150,854
12	Total Additions to Net Plant	191,275	351,572	303,385	509,611

DEDUCTIONS TO NET PLANT

13	Deferred Taxes				
14	Intangible Related	83,917	167,787	143,788	246,266
15	Production Related	6,096	24,555	28,583	56,829
16	Transmission & Distribution Related	967,802	1,988,608	1,905,221	3,244,841
17	General Related	58,277	112,797	89,796	147,325
18	Communications Equip Metscan Adj	(7,656)	(15,303)	(13,085)	(22,412)
19	Deferred Taxes	1,108,436	2,258,444	2,154,304	3,672,849
20	Unamortized Pre-1971 ITC	144	295	282	480
21	Customer Contributions	204	204	114	53
22	Customer Deposits				
23	Customer Deposits - Firm Customers	148,410	259,427	73,895	0
24	Customer Deposits - Marketers	95,623	136,948	44,556	16,653
25	Total Customer Deposits	244,033	396,375	118,452	16,653
26	Unclaimed Checks	3,717	6,636	5,600	9,127
	Total Deductions to Net Plant	1,356,534	2,661,953	2,278,752	3,699,162
	Total Rate Base	4,722,538	11,146,685	11,106,633	19,854,575

DELIVERY COMPONENTS

OPERATING REVENUES-8

REVENUES

GAS OPERATING REVENUES

SALES REVENUES									
1	Firm Sales of Gas	139,737,043	92,580,903	4,783,511	377	9,687,231	11,461,872	6,676,328	
2	Special Contracts	2,500,200	1,322,750	25,361	10	150,623	306,305	239,679	
3	Special Contracts Adjustment	418,748	221,542	4,248	2	25,227	51,302	40,143	
4	Special Contracts - Other	1,406,917	744,340	14,271	5	84,759	172,364	134,873	
5	Total Sales of Gas	144,062,908	94,869,536	4,827,390	394	9,947,841	11,991,843	7,093,023	
OTHER OPERATING REVENUES									
487-Late Payment Charges									
6	High Wint Low Ann Rate G40 & T40	79,248	0	0	0	79,248	0	0	
7	High Wint Med Ann Rate G41 & T41	58,971	0	0	0	0	58,971	0	
8	High Wint High Ann Rate G42 & T42	25,329	0	0	0	0	0	25,329	
9	High Wint Lrg Ann Rate G43 & T43	3,342	0	0	0	0	0	0	
10	Low Wint Low Ann Rate G50 & T50	15,876	0	0	0	0	0	0	
11	Low Wint Med Ann Rate G51 & T51	16,305	0	0	0	0	0	0	
12	Low Wint High Ann Rate G52 & T52	8,954	0	0	0	0	0	0	
13	Low Wint Lrg Ann Rate G53 & T53	7,019	0	0	0	0	0	0	
14	Total Account 487	215,044	0	0	0	79,248	58,971	25,329	
15	487-Return Check Charges	27,736	20,434	1,226	0	2,093	1,971	653	
16	488-Rental Revenues-W/H & Conv Burn	6,824,456	3,610,532	69,223	27	411,136	836,078	654,220	
17	882-Revenue Guardian Care & C/S	7,690,936	4,068,950	78,012	30	463,337	942,232	737,285	
493-Rent from Gas Property									
18	Rent from Gas Property	16,890	10,248	927	0	1,167	1,464	1,033	
19	LNG Tank Lease Revenue	178,750	94,569	1,813	1	10,769	21,899	17,136	
20	I/C Rents	871,002	528,914	47,877	2	60,169	75,009	53,473	
21	Total Account 493	1,066,642	633,731	50,618	3	72,105	98,371	71,641	
22	903-Cust R&C, Shutoff & Turn-Off	93,975	57,066	5,166	0	6,492	8,093	5,769	
23	Total Other Operating Revenues	15,918,789	8,390,713	204,245	59	1,034,410	1,945,716	1,494,897	
24	Total Gas Operating Revenues	159,981,697	103,260,249	5,031,635	453	10,982,251	13,937,559	8,587,921	

DELIVERY COMPONENTS			HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATING REVENUES-8							
REVENUES							
GAS OPERATING REVENUES							
SALES REVENUES							
1	Firm Sales of Gas		925,505	1,770,936	3,164,436	3,174,364	5,509,578
2	Special Contracts	DISTR	50,220	21,286	85,737	99,803	198,426
3	Special Contracts Adjustment	DISTR	8,411	3,565	14,360	16,716	33,234
4	Special Contracts - Other	DISTR	28,260	11,978	48,246	56,161	111,659
5	Total Sales of Gas		1,012,397	1,807,765	3,312,780	3,347,044	5,852,896
OTHER OPERATING REVENUES							
487-Late Payment Charges							
6	High Wint Low Ann Rate G40 & T40	C487R40	0	0	0	0	0
7	High Wint Med Ann Rate G41 & T41	C487R41	0	0	0	0	0
8	High Wint High Ann Rate G42 & T42	C487R42	0	0	0	0	0
9	High Wint Lrg Ann Rate G43 & T43	C487R43	3,342	0	0	0	0
10	Low Wint Low Ann Rate G50 & T50	C487R50	0	15,876	0	0	0
11	Low Wint Med Ann Rate G51 & T51	C487T51	0	0	16,305	0	0
12	Low Wint High Ann Rate G52 & T52	C487R52	0	0	0	8,954	0
13	Low Wint Lrg Ann Rate G53 & T53	C487R53	0	0	0	0	0
14	Total Account 487		3,342	15,876	16,305	8,954	7,019
15	487-Returk Check Charges	CUST487	111	382	582	211	93
16	488-Rental Revenues-W/H & Conv Burn	CUST488	137,079	58,101	234,026	272,418	541,616
17	882-Revenue Guardian Care & C/S	CUST882	154,484	65,478	263,739	307,006	610,384
493-Rent from Gas Property							
18	Rent from Gas Property	PLANT	188	224	457	437	745
19	LNG Tank Lease Revenue	DEMLNG	3,590	1,522	6,130	7,135	14,186
20	I/C Rents	DISTRPLT	9,725	11,469	23,330	22,579	38,455
21	Total Account 493		13,504	13,215	29,917	30,151	53,386
22	903-Cust R&C, Shutoff & Turn-Off		1,049	1,237	2,517	2,436	4,149
23	Total Other Operating Revenues	DISTRPLT	309,570	154,289	547,066	621,176	1,216,647
24	Total Gas Operating Revenues		1,321,966	1,962,055	3,859,846	3,968,220	7,069,543

DELIVERY COMPONENTS									
OPERATION & MAINTENANCE EXP-9		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OPERATION & MAINTENANCE EXP									
LIQUEFIED PROPANE GAS PRODUCTION									
1	Operation Expense								
2	710-Supervision	TLABPO	13,344	7,060	135	0	804	1,635	1,279
3	717-LPG Gas Expenses	DEMLPG	136	72	1	0	8	17	13
4	719-Handling Expense	DEMLPG	5,728	3,031	58	0	345	702	549
5	723-Fuel for LPG Gas Process	EREMAIN	0	0	0	0	0	0	0
6	728-Liquefied Petroleum Gas	EREMAIN	0	0	0	0	0	0	0
7	735-Miscellaneous Production Exp	DEMLPG	61,004	32,275	619	0	3,675	7,474	5,848
8	Total Operation Expense		80,213	42,437	814	0	4,832	9,827	7,690
9	740-Supervision	TLABPM	3,281	1,736	33	0	198	402	314
10	741-Maintenance of Struct & Improv	DEMLPG	3,439	1,819	35	0	207	421	330
11	742-Maintenance of Production Equip	DEMLPG	30,724	16,255	312	0	1,851	3,764	2,945
12	Total Maintenance Expense		37,443	19,810	380	0	2,256	4,587	3,589
	Total Liquefied Propane Gas Prod Exp		117,656	62,247	1,193	0	7,088	14,414	11,279
LIQUEFIED NATURAL GAS PRODUCTION									
13	Operation Expense								
14	750-Supervision	TLABLO	148,263	78,440	1,504	1	8,932	18,164	14,213
15	754-Liquefaction Expense	DEMLNG	47,443	25,100	481	0	2,858	5,812	4,548
16	757-Vaporization Expense	DEMLNG	8,396	4,442	85	0	506	1,029	805
17	758-Liquefied Natural Gas	EREMAIN	0	0	0	0	0	0	0
18	759-Handling Expense	DEMLNG	7,523	3,980	76	0	453	922	721
19	763-Fuel for Vaporization Expense	EREMAIN	0	0	0	0	0	0	0
20	768-LNG Raw Materials	EREMAIN	0	0	0	0	0	0	0
21	775-Miscellaneous Production Exp	DEMLNG	184,402	97,560	1,870	1	11,109	22,592	17,678
22	777-Lease Expense	DEMLNG	261,547	138,373	2,653	1	15,757	32,043	25,073
	Total Operation Expense		657,574	347,894	6,670	3	39,615	80,561	63,038
	Maintenance								
23	780-Supervision	TLABLM	2,146	1,135	22	0	129	263	206
24	781-Maintenance of Struct & Improv	DEMLNG	3,163	1,673	32	0	191	388	303
25	782-Maintenance of Production Equip	DEMLNG	75,045	39,703	761	0	4,521	9,194	7,194
26	Total Maintenance Expense		80,354	42,512	815	0	4,841	9,844	7,703
27	Total Liquefied Natural Gas Prod Exp		737,928	390,406	7,485	3	44,456	90,405	70,741

DELIVERY COMPONENTS		ALLOC		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINTENANCE EXP-9								
OPERATION & MAINTENANCE EXP								
LIQUEFIED PROPANE GAS PRODUCTION								
1	Operation Expense			268	114	458	533	1,059
2	710-Supervision	TLABPO		3	1	5	5	11
3	717-LPG Gas Expenses	DEMLPG		115	49	196	229	455
4	719-Handling Expense	DEMLPG		0	0	0	0	0
5	723-Fuel for LPG Gas Process	EREMAIN		0	0	0	0	0
6	728-Liquefied Petroleum Gas	EREMAIN		1,225	519	2,092	2,435	4,842
7	735-Miscellaneous Production Exp	DEMLPG		1,611	683	2,751	3,202	6,366
	Total Operation Expense							
8	740-Supervision	TLABPM		66	28	112	131	260
9	741-Maintenance of Struct & Improv	DEMLPG		69	29	118	137	273
10	742-Maintenance of Production Equip	DEMLPG		617	262	1,054	1,226	2,438
11	Total Maintenance Expense			752	319	1,284	1,495	2,972
12	Total Liquefied Propane Gas Prod Exp			2,363	1,002	4,035	4,697	9,338
LIQUEFIED NATURAL GAS PRODUCTION								
13	Operation Expense			2,978	1,262	5,084	5,918	11,767
14	750-Supervision	TLABLO		953	404	1,627	1,894	3,765
15	754-Liquefaction Expense	DEMLNG		169	71	288	335	666
16	757-Vaporization Expense	DEMLNG		0	0	0	0	0
17	758-Liquefied Natural Gas	EREMAIN		151	64	258	300	597
18	759-Handling Expense	DEMLNG		0	0	0	0	0
19	763-Fuel for Vaporization Expense	EREMAIN		0	0	0	0	0
20	768-LNG Raw Materials	EREMAIN		3,704	1,570	6,324	7,361	14,635
21	775-Miscellaneous Production Exp	DEMLNG		5,254	2,227	8,969	10,440	20,757
22	777-Lease Expense	DEMLNG		13,208	5,598	22,550	26,249	52,188
	Total Operation Expense							
	Maintenance							
23	780-Supervision	TLABLM		43	18	74	86	170
24	781-Maintenance of Struct & Improv	DEMLNG		64	27	108	126	251
25	782-Maintenance of Production Equip	DEMLNG		1,507	639	2,573	2,996	5,956
26	Total Maintenance Expense			1,614	684	2,756	3,208	6,377
27	Total Liquefied Natural Gas Prod Exp			14,822	6,282	25,305	29,457	58,565

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-10

OTHER GAS SUPPLY EXPENSES
PURCHASED GAS SUPPLY

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Gas Supply Demand Charges								
2 Base Demand Charges		0	0	0	0	0	0	0
3 Remaining Demand Charges		0	0	0	0	0	0	0
DBASE								
4 Total Demand Gas Costs		0	0	0	0	0	0	0
Gas Supply Commodity Charges								
4 Base Commodity Charges		0	0	0	0	0	0	0
5 Remaining Commodity Charges		0	0	0	0	0	0	0
6 Total Commodity Gas Costs		0	0	0	0	0	0	0
EBASE								
7 Total Gas Supply Expense		0	0	0	0	0	0	0
8 Total Production Expense		855,584	452,853	8,679	3	51,544	104,819	82,020

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS		ALLOC		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINT EXP CONT-10								
OTHER GAS SUPPLY EXPENSES								
PURCHASED GAS SUPPLY								
Gas Supply Demand Charges								
1	Base Demand Charges			0	0	0	0	0
2	Remaining Demand Charges			0	0	0	0	0
3	Total Demand Gas Costs			0	0	0	0	0
Gas Supply Commodity Charges								
4	Base Commodity Charges			0	0	0	0	0
5	Remaining Commodity Charges			0	0	0	0	0
6	Total Commodity Gas Costs			0	0	0	0	0
7	Total Gas Supply Expense			0	0	0	0	0
8	Total Production Expense			17,186	7,284	29,340	34,153	67,903

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-11

TRANSMISSION & DISTRIBUTION EXP

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	TLABDO	707,572	408,612	36,648	1	49,599	73,541	44,293
2	DISTR	0	0	0	0	0	0	0
3	DISTR	143,882	76,122	1,459	1	8,668	17,627	13,793
4	PLT369	405,485	214,525	4,113	2	24,428	49,677	38,871
5	PLT36780	3,764,532	2,306,379	196,617	8	255,420	308,431	240,999
6	PLT3813	5,633,560	3,434,111	528,895	0	457,429	539,449	158,439
7	CUST879	5,923,626	3,133,941	60,086	23	358,866	725,715	567,863
8	EXP8519	580,567	335,260	28,941	1	40,341	60,024	37,311
9	DISTR	61,576	32,577	625	0	3,710	7,544	5,903
10	Total Operation Expense	17,220,800	9,941,527	857,384	37	1,196,462	1,782,009	1,107,472
	Maintenance							
11	TLABDM	4,267	2,534	196	0	286	393	292
12	PLT366	41,025	21,705	416	0	2,472	5,026	3,933
13	PLT367	3,789,693	2,004,967	38,440	15	228,308	464,283	363,296
14	PLT368	0	0	0	0	0	0	0
15	PLT369	229,637	121,491	2,329	1	13,834	28,133	22,014
16	PLT380	1,687,229	1,224,728	184,286	0	131,854	45,509	35,247
17	PLT3813	436,322	265,974	40,963	0	35,428	41,781	12,271
18	PLT387	403,627	213,542	4,094	2	24,316	49,449	38,693
19	Total Maintenance Expense	6,591,800	3,854,940	270,725	17	436,499	634,573	475,746
20	Total Transmission and Distribution Exp	23,812,600	13,796,468	1,128,110	54	1,632,961	2,416,582	1,583,218

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 21 of 322

DELIVERY COMPONENTS							
		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINT EXP CONT-11							
TRANSMISSION & DISTRIBUTION EXP							
Operation Expense							
1	850-Operation Supervision & Engineer	TLABDO	7,976	11,380	24,758	19,458	31,305
2	851-System Control & Load Dispatch	DISTR	0	0	0	0	0
3	852-Communication System Exp	DISTR	2,890	1,225	4,934	5,743	11,419
4	857-Measuring & Regulating Stat Exp	PLT369	8,145	3,452	13,905	16,186	32,181
5	874-Mains and Services Exp	PLT36780	49,919	43,363	90,410	99,879	178,106
6	878-Meter & House Regulator Exp	PLT3813	11,263	146,403	231,141	86,519	39,911
7	879-Customer Installations Exp	CUST879	118,985	50,432	203,134	236,459	470,123
8	880-Other Expenses	EXP8519	6,811	8,958	19,882	16,270	26,767
9	881-Rents	DISTR	1,237	524	2,112	2,458	4,887
10	Total Operation Expense		202,225	285,737	590,276	482,973	794,699
Maintenance							
11	885-Supervision	TLABDM	56	51	118	122	220
12	886-Maintenance of Struct & Improv	PLT366	824	349	1,407	1,638	3,256
13	887-Maintenance of Mains	PLT367	76,122	32,264	129,957	151,277	300,765
14	888-Maint of Compressor Station Equip	PLT368	0	0	0	0	0
15	889-Maint of Meas & Reg Station Equip	PLT369	4,613	1,955	7,875	9,167	18,225
16	892-Maintenance of Services	PLT380	1,499	26,302	17,041	14,178	6,586
17	893-Maint of Meters and House Regul	PLT3813	872	11,339	17,902	6,701	3,091
18	894-Maintenance of Other Equipment	PLT387	8,107	3,436	13,841	16,112	32,033
19	Total Maintenance Expense		92,093	75,696	188,140	199,194	384,176
20	Total Transmission and Distribution Exp		294,318	341,433	778,415	682,167	1,158,876

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-12

CUSTOMER ACCOUNTS EXPENSES

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 901-Supervision	TLABCA	220,334	160,538	21,834	0	16,527	7,790	3,446
2 902-Meter Reading Expenses	CUST902	695,743	540,719	81,154	0	41,749	11,561	3,041
3 903-Cust Records & Collection Exp	CUST903	2,489,985	1,968,879	278,340	0	147,828	41,493	5,488
4 Cust Billing & Payment Proc Exp	CUST903C	2,684,835	1,919,813	278,140	1	262,113	90,209	24,249
5 Collections Expense	DISTRPLT	1,347,741	818,413	74,083	3	93,102	116,064	82,741
6 Service Customer Equipment	EXP903T	910,424	657,021	88,014	0	70,215	34,583	15,700
7 Call Center Expenses	CUST903	67,947	53,727	7,595	0	4,034	1,132	150
8 Postage Adjustment		7,500,932	5,417,854	726,172	4	577,292	283,482	128,327
9 Total Account 903								
904-Uncollectible Accounts								
9 Resid Heating Rate R-3 & R-4	C904R3	1,866,206	1,866,206	0	0	0	0	0
10 Resid Non-Heating Rate R-1 & R-2	C904R1	594,698	0	594,698	0	0	0	0
11 Outdoor Lighting	C904OL	0	0	0	0	0	0	0
12 High Wint Low Ann Rate G40 & T40	C904R40	284,753	0	0	0	284,753	0	0
13 High Wint Med Ann Rate G41 & T41	C904R41	63,445	0	0	0	0	63,445	0
14 High Wint High Ann Rate G42 & T42	C904R42	10,880	0	0	0	0	0	10,880
15 High Wint Lrg Ann Rate G43 & T43	C904R43	206	0	0	0	0	0	0
16 Low Wint Low Ann Rate G50 & T50	C904R50	62,395	0	0	0	0	0	0
17 Low Wint Med Ann Rate G51 & T51	C904T51	23,025	0	0	0	0	0	0
18 Low Wint High Ann Rate G52 & T52	C904R52	4,798	0	0	0	0	0	0
19 Low Wint Lrg Ann Rate G53 & T53	C904R53	2,283	0	0	0	0	0	0
20 Adjustment Bad Debt Gas Sales	EXP904S	622,998	399,164	127,201	0	60,906	13,570	2,327
21 Adj Uncollectible Prop Rate Increase	EXP904S	165,561	106,077	33,803	0	16,186	3,606	618
22 Bad Debt Expense - Cust Service	CUST882	86,737	45,889	880	0	5,225	10,626	8,315
23 Bad Debt Expense - Rental	PLT386	326,029	172,488	3,307	1	19,641	39,943	31,255
24 Adjust Bad Debt Other Revenues	EXP904O	246,232	130,271	2,498	1	14,834	30,166	23,605
25 Total Account 904		4,360,247	2,720,096	762,387	3	401,546	161,357	77,000
26 Total Customer Accounts Expenses		12,777,256	8,839,207	1,591,548	7	1,037,114	464,190	211,814

SALES EXPENSES

27 911-Supervision	TLABSA	66,710	42,759	4,292	0	3,683	4,301	3,128
28 912-Demonstrating & Selling Exp	CUST912	159,642	102,717	10,460	0	8,795	10,090	7,315
29 913-Advertising Expense	CUST913	62,710	40,349	4,109	0	3,455	3,964	2,873
30 Advertising Expense	EXP879	126,327	66,834	1,281	0	7,611	15,477	12,110
31 Advertising Guardian Care	PLT386	9,334	4,938	95	0	562	1,144	895
32 Advertising Water Heating Program		198,371	112,122	5,485	1	11,628	20,584	15,878
33 Total Account 913		7,065	4,240	315	0	403	605	458
916-Miscellaneous Sales Exp	EXP9123	431,788	261,838	20,551	1	24,509	35,581	26,779
34 Total Sales Expenses								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 23 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-12

HIGH WINTER
LRG HI ANNUAL
G-43 & T-43

LOW WINTER
LOW ANNUAL
G-50 & T-50

LOW WINTER
MED ANNUAL
G-51 & T-51

LOW WINTER
HIGH ANNUAL
G-52 & T-52

LOW WINTER
LRG HI ANNUAL
G-53 & T-53

CUSTOMER ACCOUNTS EXPENSES

1	901-Supervision	TLABCA	562	3,271	2,680	1,456	2,229
2	902-Meter Readings Expenses	CUST902	375	8,737	5,255	1,625	1,526
3	903-Cust Records & Collection Exp						
4	Cust Billing & Payment Proc Exp	CUST903	134	29,467	15,560	2,207	590
5	Collections Expense	CUST903C	3,335	51,744	31,988	9,964	13,279
6	Service Customer Equipment	DISTRPLT	15,049	17,747	36,100	34,937	59,503
7	Call Center Expenses	EXP903T	2,585	13,813	11,676	6,575	10,241
8	Postage Adjustment	CUST903	4	804	425	60	16
	Total Account 903		21,106	113,575	95,748	53,744	83,629
9	904-Uncollectible Accounts						
10	Resid Heating Rate R-3 & R-4	C904R3	0	0	0	0	0
11	Resid Non-Heating Rate R-1 & R-2	C904R1	0	0	0	0	0
12	Outdoor Lighting	C904OL	0	0	0	0	0
13	High Wint Low Ann Rate G40 & T40	C904R40	0	0	0	0	0
14	High Wint Med Ann Rate G41 & T41	C904R41	0	0	0	0	0
15	High Wint High Ann Rate G42 & T42	C904R42	0	0	0	0	0
16	High Wint Lrg Ann Rate G43 & T43	C904R43	206	0	0	0	0
17	Low Wint Low Ann Rate G50 & T50	C904R50	0	62,395	0	0	0
18	Low Wint Med Ann Rate G51 & T51	C904T51	0	0	23,025	0	0
19	Low Wint High Ann Rate G52 & T52	C904R52	0	0	0	0	0
20	Low Wint Lrg Ann Rate G53 & T53	C904R53	0	0	0	0	0
21	Adjustment Bad Debt Gas Sales	EXP904S	44	13,346	4,925	1,026	2,283
22	Adj Uncollectible Prop Rate Increase	EXP904S	12	3,547	1,309	273	488
23	Bad Debt Expense - Cust Service	CUST882	1,742	738	2,974	3,462	130
24	Bad Debt Expense - Rental	PLT386	6,549	2,776	11,180	13,014	6,884
25	Adjust Bad Debt Other Revenues	EXP904O	4,946	2,096	8,444	9,829	25,875
26	Total Account 904		13,499	84,897	51,857	32,403	19,542
	Total Customer Accounts Expenses		35,542	210,480	155,541	89,228	55,202

SALES EXPENSES

27	911-Supervision	TLABSA	657	744	1,666	1,773	3,707
28	912-Demonstrating & Selling Exp	CUST912	1,536	1,789	3,954	4,196	8,789
29	Advertising Expense						
30	Advertising Guardian Care	CUST913	603	703	1,553	1,648	3,453
31	Advertising Water Heating Program	EXP879	2,537	1,076	4,332	5,043	10,026
32	Total Account 913	PLT386	187	79	320	373	741
33	916-Miscellaneous Sales Exp		3,328	1,858	6,205	7,064	14,219
34	Total Sales Expenses	EXP9123	96	72	200	222	454
			5,617	4,463	12,026	13,255	27,170

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 24 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-13

ADMINISTRATIVE & GENERAL EXP

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Operation Expense	REVCLAIM	1,598,344	997,443	107,978		112,186	127,350	81,670
2	920-Administrative & General Salaries	REVCLAIM							
3	921-Office Supplies & Expenses	REVCLAIM	3,921,516	2,447,213	264,923		275,246	312,451	200,377
4	LDAC Unbilled Revenues Adj	REVCLAIM	(342,180)	(213,536)	(23,116)		(24,017)	(27,263)	(17,484)
5	Total Account 921		3,579,336	2,233,676	241,807		251,229	285,187	182,892
6	922-Administrative Exp Transferred-Cr	REVCLAIM	(3,492,088)	(2,179,229)	(235,913)		(245,105)	(278,236)	(178,434)
7	923-Outside Services Employed								
8	Nisource Basis 1 - 50% Gross Plt	BASIS1P	2,499,540	1,516,528	137,216		172,674	216,637	152,863
9	N Basis 1 - 50% O&M Ex Gas Costs	BASIS1OM	2,207,549	1,362,496	152,952		158,758	180,610	111,661
10	Outside Services Nisource Basis 10	BASIS10	1,465,284	1,149,827	173,016		86,594	24,414	3,231
11	Outside Services Nisource Basis 11	BASIS11	719,521	438,411	41,084		49,995	63,509	40,865
12	Outside Services Nisource Basis 12	REVCLAIM	2,460,609	1,535,537	166,230		172,707	196,051	125,729
13	Out Serv Basis 13 - Facilities Mgt	PLANT	277,276	168,230	15,221		19,155	24,032	16,957
14	Out Serv Basis 13 - IT Billing	CUST903	1,599,072	1,264,417	178,750		94,935	26,647	3,524
15	Outside Services Nisource Basis 2	BASIS2	621,087	376,827	34,095		42,906	53,830	37,983
16	Outside Services Nisource Basis 20	BASIS20	2,684,935	1,659,350	167,426		186,442	221,860	146,163
17	Nisource Basis 7 - 50% Deprec Plt	BASIS7P	70,821	42,963	3,882		4,891	6,132	4,346
18	Nisource Basis 7 - 50% O&M	BASIS7OM	11,581	7,148	802		833	947	586
19	Outside Services Nisource Basis 9	BASIS9	33,206	20,233	1,896		2,307	2,931	1,877
20	Outside Services Nisource Co 12	BASCO12	1,753,458	1,129,015	124,125		119,423	126,948	81,327
21	Outside Serv Nisource Direct Billed								
22	BSG Communications	REVCLAIM	203,872	127,226	13,773		14,309	16,244	10,417
23	Regulatory External Affairs	REVCLAIM	302,136	188,547	20,411		21,206	24,073	15,438
24	Printing & Inserting	EXP903	204,082	147,407	19,757		15,707	7,713	3,491
25	Finance & Acct'g & HR	REVCLAIM	300,332	187,422	20,289		21,080	23,929	15,346
26	Regulatory	REVCLAIM	340,213	212,309	22,984		23,879	27,107	17,384
27	Legal Energy Distr East	REVCLAIM	511,102	318,952	34,528		35,874	40,723	26,116
28	Fleet Management	LABOR	262,069	159,681	14,964		18,210	23,132	14,811
29	Nisource Retail Services	EXP879	437,393	231,406	4,437		28,351	53,586	41,930
30	Oth Outside Service - Direct Billed	REVCLAIM	1,647,928	1,028,386	111,328		115,666	131,300	84,204
31	Total Out Serv - Direct Billed		4,209,127	2,601,335	262,471		292,281	347,806	229,137
32	Outside Services Employed BSG	REVCLAIM	1,236,095	771,382	83,506		86,760	98,467	63,160
33	NIS Gas Dispatching & Control	DISTR	672,581	355,834	6,822		40,519	82,399	64,476
34	NIS Gas Acq & Dispat Costs - Sales	GASCOSTS	0	0	0		0	0	0
35	NIS Gas Acq & Dispat Costs - Trans	DISTR	159,283	84,270	1,616		9,596	19,514	15,270
36	Nisource Payroll & Benefits Adj	REVCLAIM	692,954	432,436	46,813		55,212	55,212	35,408
37	Nisource PBOP & Pension	PENSION	603,831	383,798	39,256		43,032	47,268	29,559
38	Nisource Charitable Contr Adj	REVCLAIM	(7,997)	(4,991)	(540)		(561)	(637)	(809)
39	DSM Implementation Expense Adj	REVCLAIM	(2,214,080)	(1,381,692)	(149,575)		(155,403)	(176,409)	(119,332)
40	Customer Choice Recoveries Adj	REVCLAIM	60,274	37,614	4,072		4,231	4,802	3,880
41	Total Account 923		21,816,006	13,950,968	1,491,137		1,480,712	1,622,989	1,053,260
42	924-Property Insurance	PLANT	0	0	0		0	0	0
43	925-Injuries & Damages								
44	Injuries & Damages	REVCLAIM	2,498,055	1,558,906	168,760		175,335	199,035	127,471
45	Corporate Insurance Premiums Adj	REVCLAIM	86,976	54,277	5,876		6,105	6,930	4,446
46	Self Insurance Adjustment	REVCLAIM	73,265	45,721	4,949		5,142	5,837	3,274
47	Total Account 925		2,658,296	1,658,903	179,585		186,582	211,802	135,590

Bay State Gas Company

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-13

ADMINISTRATIVE & GENERAL EXP

			HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Operation Expense	REVCLAIM	14,394	23,315	41,623	35,130	57,252
2	920-Administrative & General Salaries	REVCLAIM					
3	921-Office Supplies & Expenses	REVCLAIM	35,316	57,203	102,123	86,190	140,467
4	LDAC Unbilled Revenues Adj	REVCLAIM	(3,082)	(4,991)	(8,911)	(7,521)	(12,257)
5	Total Account 921		32,234	52,211	93,212	78,669	128,210
6	922-Administrative Exp Transferred-Cr	REVCLAIM	(31,448)	(50,939)	(90,940)	(76,752)	(125,085)
7	923-Outside Services Employed						
8	Nisource Basis 1 - 50% Gross Pft	BASIS1P	27,890	33,166	67,624	64,671	110,266
9	N Basis 1 - 50% O&M Ex Gas Costs	BASIS1OM	20,315	33,302	59,090	48,208	80,153
10	Outside Services Nisource Basis 10	BASIS10	79	17,273	9,142	1,300	347
11	Outside Services Nisource Basis 11	BASIS11	7,592	10,251	20,488	17,518	30,007
12	Outside Services Nisource Basis 13	REVCLAIM	22,159	35,893	64,078	54,081	88,138
13	Out Serv Basis 13 - Facilities Mgt	PLANT	3,094	3,679	7,502	7,174	12,232
14	Out Serv Basis 13 - IT Billing	CUST903	86	18,924	9,993	1,417	379
15	Outside Services Nisource Basis 2	BASIS2	6,930	8,241	16,803	16,070	27,399
16	Outside Services Nisource Basis 20	BASIS20	26,723	37,486	70,900	62,484	106,095
17	Nisource Basis 7 - 50% Deprec Pft	BASIS7P	792	937	1,911	1,837	3,131
18	Nisource Basis 7 - 50% O&M	BASIS7OM	107	175	310	253	420
19	Outside Services Nisource Basis 9	BASIS9	350	473	946	808	1,385
20	Outside Serv Nisource Direct Billed	BASCO12	14,691	24,040	40,903	34,752	58,227
21	BSG Communications	REVCLAIM	1,836	2,974	5,309	4,481	7,303
22	Regulatory External Affairs	REVCLAIM	2,721	4,407	7,868	6,641	10,822
23	Printing & Inserting	EXP903	574	3,090	2,605	1,462	2,275
24	Finance & Acct'g & HR	REVCLAIM	2,705	4,381	7,821	6,601	10,758
25	Regulatory	REVCLAIM	3,064	4,963	8,860	7,477	12,186
26	Legal Energy Distr East	REVCLAIM	4,603	7,455	13,310	11,233	18,307
27	Fleet Management	LABOR	2,765	3,734	7,462	6,381	10,929
28	Nisource Retail Services	EXP879	8,786	3,724	14,999	17,460	34,713
29	Oth Outside Service - Direct Billed	REVCLAIM	14,841	24,038	42,915	36,219	59,028
30	Total Out Serv - Direct Billed		41,894	58,766	111,149	97,955	166,323
31	Outside Services Employed BSG	REVCLAIM	11,132	18,031	32,190	27,168	44,276
32	NIS Gas Dispatching & Control	DISTR	13,510	5,726	23,064	26,848	53,379
33	NIS Gas Acq & Dispat Costs - Sales	GASCOSTS	0	0	0	0	0
34	NIS Gas Acq & Dispat Costs - Trans	DISTR	3,199	1,356	5,462	6,358	12,641
35	Nisource Payroll & Benefits Adj	REVCLAIM	6,240	10,108	18,046	15,230	24,821
36	Nisource PBOP & Pension	PENSION	5,231	8,656	14,995	12,306	19,927
37	Nisource Charitable Contr Adj	REVCLAIM	(72)	(117)	(208)	(176)	(286)
38	DSM Implementation Expense Adj	REVCLAIM	(19,939)	(32,297)	(57,658)	(48,663)	(79,308)
39	Customer Choice Recoveries Adj	REVCLAIM	543	879	1,570	1,325	2,159
40	Total Account 923		192,548	294,948	518,298	448,926	762,111
41	924-Property Insurance	PLANT	0	0	0	0	0
42	Injuries & Damages	REVCLAIM	22,496	36,439	65,053	54,904	89,479
43	Corporate Insurance Premiums Adj	REVCLAIM	793	1,269	2,265	1,912	3,115
44	Self Insurance Adjustment	REVCLAIM	660	1,069	1,908	1,610	2,624
45	Total Account 925		23,940	38,776	69,226	58,426	95,219

DELIVERY COMPONENTS

OPERATION & MAINT EXP CONT-14

ADMIN & GENERAL EXP CONT

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
926-Employees Pensions & Benefits								
1 Employees Pensions & Benefits	LABOR	8,690,973	5,295,494	496,243	17	603,886	767,109	491,182
2 Medical & Dental Benefits Adj	LABOR	712,743	434,281	40,697	1	49,524	62,910	40,282
3 Pension & PBOP Expense	PENSION	5,026,451	3,194,839	326,780	10	326,207	393,469	244,396
4 Total Account 926		14,430,167	8,924,615	863,720	29	1,011,617	1,223,489	775,860
928-Regulatory Commission Expenses								
5 Regulatory Commission Expenses	REVCLAIM	328,911	205,256	22,220	1	23,086	26,206	16,806
6 Rate Case Expense Adj	REVCLAIM	303,694	189,519	20,516	1	21,316	24,197	15,518
7 Total Account 928		632,605	394,776	42,736	1	44,402	50,403	32,324
929-Duplicate Charges-Cr	REVCLAIM	0	0	0	0	0	0	0
930-Miscellaneous General Exp								
9 Miscellaneous General Exp	REVCLAIM	641,517	400,337	43,339	1	45,027	51,114	32,779
10 Charitable Contributions Adj	REVCLAIM	(134,837)	(84,144)	(9,109)	(0)	(9,464)	(10,743)	(6,890)
11 Research & Develop GRI/GTI Adj	REVCLAIM	283,826	177,121	19,174	1	19,921	22,614	14,503
12 Total Account 930		790,506	493,314	53,404	2	55,485	62,984	40,392
931 Rents								
13 Rents - General & Admin	REVCLAIM	1,009,517	629,987	68,199	2	70,857	80,434	51,583
14 Metscan Lease Expense	PLT397M	4,817,413	2,936,603	452,273	0	391,160	461,298	135,486
15 Metscan Lease Expense Adj	PLT397M	(2,919,051)	(1,779,398)	(274,049)	0	(237,019)	(279,517)	(82,096)
16 Water Heater Lease Expense	PLT386	185,481	98,130	1,881	1	11,174	22,724	17,781
17 Iron Lease Payment Adj	PLT397E	310,104	189,033	29,113	0	25,180	29,694	8,721
18 Total Account 931		3,403,464	2,074,355	277,418	3	261,352	314,632	131,475
19 Total Operation Expense		45,416,636	28,548,820	3,021,873	152	3,158,460	3,620,602	2,255,270
Maintenance								
932 Maintenance of General Plant								
20 Maintenance of General Plant	GENPLT	1,985,190	1,209,643	119,812	4	139,996	176,538	107,210
21 ERC Remediation Adj	GENPLT	(1,168,571)	(712,050)	(70,526)	(2)	(82,408)	(103,918)	(83,108)
22 Total Account 932		816,619	497,593	49,285	1	57,588	72,620	44,101
23 Total Administrative & General Exp		46,233,255	29,046,413	3,071,158	153	3,216,048	3,693,222	2,299,372
24 Total Gas O&M Exp Before Other Adj		84,110,483	52,396,578	5,820,045	218	5,962,176	6,714,394	4,203,202
ADJUSTMENTS TO O&M EXPENSES								
25 Total Gas Operation & Maintenance Exp		84,110,483	52,396,578	5,820,045	218	5,962,176	6,714,394	4,203,202
26 Payroll - Union Adjustment	OMLAB	1,120,371	696,751	70,766	2	79,007	92,571	57,529
27 Payroll - Non-Union Adjustment	OMLAB	423,775	263,543	26,767	1	29,884	35,015	21,760
28 Incentive Compensation Adjustment	OMLAB	(118,797)	(73,879)	(7,504)	(0)	(8,377)	(9,816)	(6,100)
29 Gain on Sale of Property Adjustment	PLANT	(397,807)	(241,358)	(21,838)	(1)	(27,481)	(34,478)	(24,228)
30 Farm Sales Adjustment	REVCLAIM	14,026	8,753	948	0	985	1,118	1,117
31 Inflation Adjustment	OTHOMINF	1,134,353	697,892	67,266	2	79,384	96,846	61,451
32 Total Adjusted Gas Oper & Maint Exp		86,286,405	53,748,281	5,956,449	222	6,115,577	6,895,650	4,338,231

Bay State Gas Company
D.T.E. 05-27
AG-22-44(1)
Page 27 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINT EXP CONT-14							
ADMIN & GENERAL EXP CONT							
1	926-Employees Pensions & Benefits	LABOR	91,705	123,816	247,470	211,603	362,447
2	Medical & Dental Benefits Adj	LABOR	7,521	10,154	20,295	17,353	29,724
3	Pension & PBOP Expense	PENSION	142,774	72,059	124,840	102,440	165,880
4	Total Account 926			206,030	392,587	331,396	558,050
5	928-Regulatory Commission Expenses						
6	Regulatory Commission Expenses	REVCLAIM	2,962	4,798	8,565	7,229	11,781
7	Rate Case Expense Adj	REVCLAIM	2,735	4,430	7,909	6,675	10,878
8	Total Account 928		5,697	9,228	16,474	13,904	22,660
9	929-Duplicate Charges-Cr	REVCLAIM	0	0	0	0	0
10	930-Miscellaneous General Exp						
11	Miscellaneous General Exp	REVCLAIM	5,777	9,358	16,706	14,100	22,979
12	Charitable Contributions Adj	REVCLAIM	(1,214)	(1,967)	(3,511)	(2,964)	(4,830)
13	Research & Develop GR/GTI Adj	REVCLAIM	2,556	4,140	7,391	6,238	10,167
14	Total Account 930		7,119	11,531	20,586	17,374	28,316
15	931 Rents						
16	Rents - General & Admin	REVCLAIM	9,091	14,726	26,289	22,188	36,161
17	Metscan Lease Expense	PLT397M	9,631	125,194	197,655	73,985	34,129
18	Water Heater Lease Expense	PLT386	3,726	1,579	6,361	7,404	14,721
19	Iron Lease Payment Adj	PLT397E	620	8,059	12,723	4,763	2,197
20	Total Account 931		17,232	73,698	123,262	63,509	66,527
21	Total Operation Expense		404,490	658,798	1,184,329	970,583	1,593,260
22	Maintenance						
23	932 Maintenance of General Plant						
24	Maintenance of General Plant	GENPLT	19,445	30,344	58,732	46,756	76,710
25	ERC Remediation Adj	GENPLT	(11,446)	(17,862)	(34,572)	(27,522)	(45,155)
26	Total Account 932		7,999	12,482	24,160	19,233	31,555
27	Total Administrative & General Exp		412,489	671,280	1,208,488	989,816	1,624,815
28	Total Gas O&M Exp Before Other Adj		765,151	1,234,940	2,183,811	1,808,618	3,021,349
29	ADJUSTMENTS TO O&M EXPENSES						
30	Total Gas Operation & Maintenance Exp		765,151	1,234,940	2,183,811	1,808,618	3,021,349
31	Payroll - Union Adjustment	OMLAB	10,485	16,503	30,380	24,898	41,478
32	Payroll - Non-Union Adjustment	OMLAB	3,966	6,242	11,491	9,417	15,689
33	Incentive Compensation Adjustment	OMLAB	(1,112)	(1,750)	(3,221)	(2,640)	(4,398)
34	Gain on Sale of Property Adjustment	PLANT	(4,439)	(5,278)	(10,763)	(10,293)	(17,549)
35	Farm Sales Adjustment	REVCLAIM	126	205	365	308	502
36	Inflation Adjustment	OTHOMINF	11,490	16,204	31,254	26,649	45,415
37	Total Adjusted Gas Oper & Maint Exp		785,667	1,267,065	2,243,318	1,856,958	3,102,485

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 28 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEPREC & AMORT EXP CONT-16

TRANSMISSION PLANT DEPRECIATION

	ALOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 379 Other Equipment	PLT379	13,471	7,127	137	0	812	1,650	1,291
2 Total Transmission Plant Depreciation		13,471	7,127	137	0	812	1,650	1,291
GENERAL PLANT DEPRECIATION								
3 390 Structures & Improvements	PLT390	147,522	89,887	8,423	0	10,250	13,021	8,337
4 Total General Plant Depreciation		147,522	89,887	8,423	0	10,250	13,021	8,337
GENERAL PLT DEPRECIATION (Equip)								
5 391 Office Equipment	PLT391OE	296,122	180,430	16,908	1	20,576	26,137	16,736
6 Office Equipment	PLT391IT	968,345	590,022	55,291	2	67,285	85,471	54,727
7 Total Account 391		1,264,468	770,452	72,199	2	87,861	111,608	71,463
8 392 Transportation Equipment	PLT392	315,310	192,121	18,004	1	21,909	27,831	17,820
9 393 Stores Equipment	PLT393	5,539	3,375	316	0	385	489	313
10 394 Tools, Shop & Garage Equipment	PLT394	78,382	47,759	4,475	0	5,446	6,918	4,430
11 396 Power Operated Equipment	PLT396	47,729	29,082	2,725	0	3,316	4,213	2,697
12 397 Communication Equipment	PLT397O	484,002	294,907	27,636	1	33,631	42,720	27,354
13 Communications Equip ERT/ITRON	PLT397E	160,519	97,849	15,070	0	13,034	15,371	4,514
14 Communications Equip Metscan	PLT397M	159,243	97,071	14,950	0	12,930	15,249	4,479
15 Total Account 397		803,764	489,828	57,656	1	59,594	73,340	36,347
16 398 Miscellaneous Equipment	PLT398	1,213	739	69	0	84	107	69
17 Tot Gen Plt Depreciation (Equip)		2,516,404	1,533,356	155,446	4	178,596	224,506	133,139
18 Adj Depreciation Exp Alloc Mgt. Fee	GENPLT	(64,502)	(39,303)	(3,893)	(0)	(4,549)	(5,736)	(3,483)
19 Adj Amortization of Metscan Devices	PLT397M	2,643,350	1,611,336	248,165	0	214,632	253,117	74,342
20 Total Depreciation & Amortization Exp		34,563,572	21,542,084	2,288,766	54	2,472,016	2,756,481	1,797,485

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 31 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEPREC & AMORT EXP CONT-16

		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
TRANSMISSION PLANT DEPRECIATION							
1	379 Other Equipment	PLT379	271	115	462	538	1,069
2	Total Transmission Plant Depreciation		271	115	462	538	1,069
GENERAL PLANT DEPRECIATION							
3	390 Structures & Improvements	PLT390	1,557	2,102	4,201	3,592	6,152
4	Total General Plant Depreciation		1,557	2,102	4,201	3,592	6,152
GENERAL PLT DEPRECIATION (Equip)							
5	391 Office Equipment	PLT391OE	3,125	4,219	8,432	7,210	12,349
6	Office Equipment	PLT391IT	10,218	13,796	27,573	23,577	40,384
7	Total Account 391		13,342	18,014	36,005	30,787	52,733
8	392 Transportation Equipment	PLT392	3,327	4,492	8,978	7,677	13,150
9	393 Stores Equipment	PLT393	58	79	158	135	231
10	394 Tools, Shop & Garage Equipment	PLT394	827	1,117	2,232	1,908	3,269
11	396 Power Operated Equipment	PLT396	504	680	1,359	1,162	1,990
12	397 Communication Equipment	PLT397O	5,107	6,895	13,782	11,784	20,185
13	Communications Equipment Other	PLT397E	321	4,172	6,586	2,465	1,137
14	Communications Equip ERT/ITRON	PLT397M	318	4,138	6,534	2,446	1,128
15	Total Account 397		5,746	15,205	26,901	16,695	22,450
16	398 Miscellaneous Equipment	PLT398	13	17	35	30	51
17	Tot Gen Plt Depreciation (Equip)		23,818	39,604	75,668	58,393	93,874
18	Adj Depreciation Exp Alloc Mgt. Fee	GENPLT	(632)	(986)	(1,908)	(1,519)	(2,492)
19	Adj Amortization of Metscan Devices	PLT397M	5,285	68,695	108,455	40,596	18,727
20	Total Depreciation & Amortization Exp		304,901	516,079	909,411	771,858	1,204,437

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

STATE & FED TAXES & OTH EXP-17

TAXES OTHER THAN INCOME

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Payroll Taxes		2,387,037	1,454,445	136,297	5	165,862	210,692	134,907
2 Payroll Tax Adjustment		87,634	53,396	5,004	0	6,089	7,735	4,953
3 Total Payroll Taxes	LABOR LABOR	2,474,671	1,507,841	141,301	5	171,951	218,427	139,859
4 Property Taxes		6,891,738	4,181,374	378,332	14	476,098	597,313	421,474
5 Property Tax Adjustment	PLANT PLANT	302,801	183,716	16,623	1	20,918	26,244	18,518
6 Total Property Taxes		7,194,539	4,365,090	394,955	15	497,016	623,557	439,992
7 Other Taxes		64,253	38,984	3,527	0	4,439	5,569	3,929
8 Other Tax Adjustment	PLANT PLANT	0	0	0	0	0	0	0
9 Total Other Taxes		64,253	38,984	3,527	0	4,439	5,569	3,929
10 Total Plant Related Taxes		7,258,792	4,404,074	398,482	15	501,455	629,126	443,921
11 Revenue Related Taxes		41,974	26,194	2,836	0	2,946	3,344	2,145
12 Other State Taxes	REYCLAIM	41,974	26,194	2,836	0	2,946	3,344	2,145
13 Total Taxes Other Than Income		9,775,438	5,938,109	542,618	20	676,351	850,898	585,925
FEDERAL & STATE INCOME TAXES								
14 State Tax @ 6.50%		1,187,910	1,008,544	(277,163)	8	63,341	154,128	73,815
15 Federal Tax @ 35.00%		5,980,668	5,077,629	(1,395,408)	43	318,898	775,974	371,630
16 Amortization of ITC		(364,227)	(220,985)	(19,995)	(1)	(25,162)	(31,568)	(22,275)
17 Deferred Tax Flowback		256,894	155,864	14,103	1	17,747	22,265	15,711
18 Total Income Tax Expense		7,061,245	6,021,052	(1,678,463)	51	374,824	920,799	438,881
19 INTEREST ON CUSTOMER DEPOSITS	TOTCDEP	72,506	891	36	0	23,620	21,937	5,800
20 Total Expenses		137,759,166	87,250,416	7,109,407	347	9,662,388	11,445,765	7,142,823
21 Net Operating Income		22,222,531	16,009,834	(2,077,772)	107	1,319,863	2,491,794	1,445,098

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 33 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
HIGH WINTER LRG HI ANNUAL G-43 & T-43				
ALLOC				

STATE & FED TAXES & OTH EXP-17

TAXES OTHER THAN INCOME

1 Payroll Taxes				
2 Payroll Tax Adjustment	34,007	67,970	58,118	99,549
3 Total Payroll Taxes	1,248	2,495	2,134	3,855
	35,256	70,465	60,252	103,203

Plant Related Taxes

4 Property Taxes	91,445	186,453	178,312	304,025
5 Property Tax Adjustment	4,018	8,192	7,834	13,358
6 Total Property Taxes	95,463	194,645	186,146	317,383
Other Taxes				
7 Other Taxes	853	1,738	1,662	2,834
8 Other Tax Adjustment	0	0	0	0
9 Total Other Taxes	853	1,738	1,662	2,834
10 Total Plant Related Taxes	96,315	196,384	187,809	320,217

Revenue Related Taxes

11 Other State Taxes	612	1,093	923	1,503
12 Total Revenue Related Taxes	612	1,093	923	1,503
13 Total Taxes Other Than Income	132,183	267,942	248,983	424,924

FEDERAL & STATE INCOME TAXES

14 State Tax @ 6.50%	(6,083)	7,293	50,122	115,144
15 Federal Tax @ 35.00%	(30,627)	36,716	252,343	579,707
16 Amortization of ITC	(4,833)	(9,854)	(9,424)	(16,068)
17 Deferred Tax Flowback	3,409	6,950	6,647	11,333
18 Total Income Tax Expense	(38,135)	41,105	299,688	690,117

INTEREST ON CUSTOMER DEPOSITS

19 TOTCDEP	5,725	9,298	2,779	391
20 Total Expenses	1,882,918	3,471,074	3,180,266	5,422,354
21 Net Operating Income	79,137	388,771	787,954	1,647,190

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 34 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF INCOME TAXES-18

FEDERAL & STATE TAX CALCULATION

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Operating Revenues		159,981,697	103,260,249	5,031,635	453	10,982,251	13,937,559	8,587,921
Operating Expenses								
2 Operation & Maintenance Expense		86,286,405	53,748,281	5,956,449	222	6,115,577	6,895,650	4,314,731
3 Depreciation & Amortization Expense		34,563,572	21,542,084	2,288,766	54	2,472,016	2,756,481	1,797,485
4 Taxes Other Than Income		9,775,438	5,938,109	542,618	20	676,351	850,898	585,925
Interest Expense								
5 Interest on Customer Deposits		72,506	891	36	0	23,620	21,937	5,800
6 Interest Expense		11,008,243	6,514,829	507,808	27	720,209	1,041,396	748,363
7 Book Taxable Income		18,275,534	15,516,056	(4,264,043)	131	974,478	2,371,197	1,135,615
Adjustments to Taxable Income								
10 Deductions	PLANT	0	0	0	0	0	0	0
11 Taxable Basis State Franchise Tax		18,275,534	15,516,056	(4,264,043)	131	974,478	2,371,197	1,135,615
Less:								
12 State Tax @ 6.50%		1,187,910	1,008,544	(277,163)	8	63,341	154,128	73,815
13 Federal Taxable Basis		17,087,624	14,507,512	(3,986,880)	122	911,137	2,217,069	1,061,800
14 Federal Income Tax @ 35.00%		5,980,668	5,077,629	(1,395,408)	43	318,898	775,974	371,630
15 Federal Income Tax Liability		5,980,668	5,077,629	(1,395,408)	43	318,898	775,974	371,630
16 Amortization of ITC	PLANT	(364,227)	(220,965)	(19,995)	(1)	(25,162)	(31,566)	(22,275)
17 Deferred Tax Flowback	PLANT	256,894	155,864	14,103	1	17,747	22,265	15,711
18 Total Income Tax Expense		7,061,245	6,021,052	(1,678,463)	51	374,824	920,799	438,881
19 Net Income After Tax		22,222,531	16,009,834	(2,077,772)	107	1,319,863	2,491,794	1,445,098

Effective State Tax Rate	6.50%
Federal Tax Rate - Current	35.00%
1 - Incremental Tax Rate	0.60775
Incremental Tax Rate	0.39225
Effective Incremental Federal Rate	0.32725
Factor for Taxable Basis	1.64541
Interest Expense Percentage	2.85%
Purchased Gas Working Capital %	11.564%
Other O&M Working Capital %	0.00%

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 35 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

HIGH WINTER
LRG HI ANNUAL
G-43 & T-43

ALLOC

LOW WINTER
LOW ANNUAL
G-50 & T-50

LOW WINTER
MED ANNUAL
G-51 & T-51

LOW WINTER
HIGH ANNUAL
G-52 & T-52

LOW WINTER
LRG HI ANNUAL
G-53 & T-53

DEVELOPMENT OF INCOME TAXES-18

FEDERAL & STATE TAX CALCULATION

1	Operating Revenues	1,321,966	1,962,055	3,859,846	3,968,220	7,069,543
2	Operating Expenses					
3	Operation & Maintenance Expense	785,667	1,267,065	2,243,318	1,856,958	3,102,485
4	Depreciation & Amortization Expense	304,901	516,079	909,411	771,858	1,204,437
5	Taxes Other Than Income	107,485	132,183	267,942	248,983	424,924
6	Interest Expense					
7	Interest on Customer Deposits	2,030	5,725	9,298	2,779	391
8	Interest Expense	140,942	134,592	317,681	316,539	565,855
9	Book Taxable Income	(19,059)	(93,590)	112,196	771,103	1,771,451
10	Adjustments to Taxable Income					
11	Deductions	0	0	0	0	0
12	Taxable Basis State Franchise Tax	(19,059)	(93,590)	112,196	771,103	1,771,451
13	Less:					
14	State Tax @ 6.50%	(1,239)	(6,083)	7,293	50,122	115,144
15	Federal Taxable Basis	(17,820)	(87,507)	104,903	720,981	1,656,306
16	Federal Income Tax @ 35.00%	(6,237)	(30,627)	36,716	252,343	579,707
17	Federal Income Tax Liability	(6,237)	(30,627)	36,716	252,343	579,707
18	Amortization of ITC	(4,064)	(4,833)	(9,854)	(9,424)	(16,068)
19	Deferred Tax Flowback	2,866	3,409	6,950	6,647	11,333
20	Total Income Tax Expense	(8,674)	(38,135)	41,105	299,688	690,117
21	Net Income After Tax	130,557	79,137	388,771	787,954	1,647,190

Effective State Tax Rate
Federal Tax Rate - Current
1 - Incremental Tax Rate
Incremental Tax Rate
Effective Incremental Federal Rate
Factor for Taxable Basis
Interest Expense Percentage
Purchased Gas Working Capital %
Other O&M Working Capital %

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVELOPMENT OF LABOR ALLOC-19

DEVELOPMENT OF LABOR ALLOCATOR

LIQUEFIED PROPANE PROD LABOR

		TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Operation Labor							
2	LABPO	11,677	6,178	118	0	703	1,431	1,119
3	710-Supervision					6	12	9
4	EXP717	98	52	1	0	267	543	425
5	717-LPG Gas Expenses	4,430	2,344	45	0	2,096	4,262	3,335
6	719-Handling Expense	34,788	18,405	353	0	3,072	6,247	4,889
7	735-Miscellaneous Production Exp	50,994	26,979	517	0			
8	Total Operation Labor							
9	Maintenance Labor							
10	LABPM	2,791	1,477	28	0	168	342	268
11	740-Supervision					75	153	120
12	EXP741	1,251	662	13	0	749	1,522	1,191
13	741-Maintenance of Struct & Improv	12,427	6,575	126	0	992	2,018	1,579
14	742-Maintenance of Production Equip	16,470	8,713	167	0	4,064	8,265	6,467
15	Total Maintenance Labor							
16	Total Liquefied Propane Prod Labor	67,464	35,692	684	0			

LIQUEFIED NATURAL GAS LABOR

		TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
17	Operation Labor							
18	LABLO	129,742	68,641	1,316	1	7,816	15,895	12,438
19	750-Supervision					2,242	4,559	3,568
20	EXP754	37,215	19,689	377	0	397	807	631
21	754-Liquefaction Expense	6,586	3,484	67	0	351	713	558
22	757-Vaporization Expense	5,818	3,078	59	0	6,335	12,883	10,081
23	759-Handling Expense	105,157	55,634	1,067	0	0	0	0
24	775-Miscellaneous Production Exp	0	0	0	0	17,141	34,857	27,275
25	EXP775							
26	777-Lease Expense	284,519	150,527	2,886	1			
27	Total Operation Labor							
28	Maintenance Labor							
29	LABLM	1,826	966	19	0	110	224	175
30	EXP781	1,151	609	12	0	69	141	110
31	780-Supervision	30,354	16,059	308	0	1,829	3,719	2,910
32	781-Maintenance of Struct & Improv	33,331	17,634	338	0	2,008	4,083	3,195
33	782-Maintenance of Production Equip	317,850	168,161	3,224	1	19,149	38,940	30,470
34	Total Maintenance Labor							
35	Total Liquefied Natural Gas Prod Labor							
36		385,314	203,853	3,908	2	23,213	47,206	36,938

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 37 of 322

DELIVERY COMPONENTS		ALLOC		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVELOPMENT OF LABOR ALLOC-19								
DEVELOPMENT OF LABOR ALLOCATOR								
LIQUEFIED PROPANE PROD LABOR								
1	Operation Labor	LABPO	235	99	400	466	927	
2	710-Supervision	EXP717	2	1	3	4	8	
3	717-LPG Gas Expenses	EXP719	89	38	152	177	352	
4	719-Handling Expense	EXP735	699	296	1,193	1,389	2,761	
5	735-Miscellaneous Production Exp		1,024	434	1,749	2,036	4,047	
6	Total Operation Labor							
7	Maintenance Labor	LABPM	56	24	96	111	222	
8	740-Supervision	EXP741	25	11	43	50	99	
9	741-Maintenance of Struct & Improv	EXP742	250	106	426	496	986	
10	742-Maintenance of Production Equip		331	140	565	657	1,307	
11	Total Maintenance Labor		1,355	574	2,313	2,693	5,354	
12	Total Liqueified Propane Prod Labor							
LIQUEFIED NATURAL GAS LABOR								
13	Operation Labor	LABLO	2,606	1,105	4,449	5,179	10,297	
14	750-Supervision	EXP754	748	317	1,276	1,486	2,954	
15	754-Liquefaction Expense	EXP757	132	56	226	263	523	
16	757-Vaporization Expense	EXP759	117	50	200	232	462	
17	759-Handling Expense	EXP775	2,112	895	3,606	4,198	8,346	
18	775-Miscellaneous Production Exp	EXP777	0	0	0	0	0	
19	777-Lease Expense		5,715	2,422	9,757	11,357	22,581	
20	Total Operation Labor							
21	Maintenance Labor	LABLM	37	16	63	73	145	
22	780-Supervision	EXP781	23	10	39	46	91	
23	781-Maintenance of Struct & Improv	EXP782	610	258	1,041	1,212	2,409	
24	782-Maintenance of Production Equip		670	284	1,143	1,331	2,645	
25	Total Maintenance Labor		6,384	2,706	10,900	12,688	25,226	
26	Total Liqueified Natural Gas Prod Labor							
27	Total Production Labor		7,740	3,280	13,213	15,381	30,580	

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVEL OF LABOR ALLOC CONT-20

TRANSMISSION & DISTRIB LABOR

		LABDO	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Operation Labor								
2	850-Operation Supervision & Engineer	EXP851	516,364	298,192	26,745		36,196	53,668	32,323
3	851-System Control & Load Dispatch	EXP852	0	0	0		0	0	0
4	852-Communication System Exp	EXP857	0	0	0		0	0	0
5	857-Measuring & Regulating Stat Exp	EXP874	247,504	130,944	2,511		14,911	30,322	23,727
6	874-Mains and Services Exp	EXP878	1,872,344	1,147,111	97,790		127,037	153,403	119,864
7	878-Meter & House Regulator Exp	EXP879	3,903,793	2,379,678	366,499		316,977	373,813	109,791
8	879-Customer Installations Exp	EXP880	3,699,668	1,957,338	37,527		222,885	453,254	354,685
9	880-Other Expenses	EXP881	367,296	212,102	18,310		25,522	37,974	23,605
10	881-Rents		0	0	0		0	0	0
	Total Operation Labor		10,606,968	6,125,365	549,382		743,527	1,102,434	663,975
	Maintenance Labor								
11	885-Supervision	LABDM	4,263	2,531	196		286	392	292
12	886-Maintenance of Struct & Improv	EXP886	21,780	11,523	221		1,312	2,668	2,088
13	887-Maintenance of Mains	EXP887	2,193,154	1,160,305	22,246		132,125	268,688	210,245
14	888-Maint of Compressor Station Equip	EXP888	0	0	0		0	0	0
15	889-Maint of Meas & Reg Station Equip	EXP889	179,726	95,085	1,823		10,828	22,019	17,229
16	892-Maintenance of Services	EXP892	1,261,488	915,691	137,785		98,583	34,026	26,353
17	893-Maint of Meters and House Regul	EXP893	312,751	190,647	29,362		25,395	29,948	8,796
18	894-Maintenance of Other Equipment	EXP894	256,706	135,812	2,604		15,465	31,450	24,609
19	Total Maintenance Labor		4,229,868	2,511,595	194,237		283,994	389,190	289,611
20	Total Transmission and Distribution Labor		14,836,836	8,636,961	743,619		1,027,521	1,491,624	953,587

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 39 of 322

DELIVERY COMPONENTS		ALLOC					HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVEL OF LABOR ALLOC CONT-20											
TRANSMISSION & DISTRIB LABOR											
Operation Labor											
1	850-Operation Supervision & Engineer	LABDO									
2	851-System Control & Load Dispatch	EXP851		5,820	0	0	8,305	18,068	14,200	22,845	0
3	852-Communication System Exp	EXP852		0	0	0	0	0	0	0	0
4	857-Measuring & Regulating Stat Exp	EXP857		4,971			2,107	8,487	9,880	19,643	
5	874-Mains and Services Exp	EXP874		22,341			21,567	44,967	49,676	88,583	
6	878-Meter & House Regulator Exp	EXP878		7,805			101,451	160,170	59,954	27,657	
7	879-Customer Installations Exp	EXP879		74,313			31,498	126,870	147,683	293,621	
8	880-Other Expenses	EXP880		4,309			5,667	12,578	10,293	16,934	
9	881-Rents	EXP881		0			0	0	0	0	
10	Total Operation Labor			119,560			170,594	371,140	291,686	468,283	
Maintenance Labor											
11	885-Supervision	LABDM		55			51	118	122	219	
12	886-Maintenance of Struct & Improv	EXP886		437			185	747	869	1,729	
13	887-Maintenance of Mains	EXP887		44,053			18,672	75,208	87,546	174,058	
14	888-Maint of Compressor Station Equip	EXP888		0			0	0	0	0	
15	889-Maint of Meas & Reg Station Equip	EXP889		3,610			1,530	6,163	7,174	14,264	
16	892-Maintenance of Services	EXP892		1,121			19,665	12,741	10,600	4,924	
17	893-Maint of Meters and House Regul	EXP893		625			8,128	12,832	4,803	2,216	
18	894-Maintenance of Other Equipment	EXP894		5,156			2,186	8,803	10,247	20,373	
19	Total Maintenance Labor			55,058			50,416	116,611	121,363	217,782	
20	Total Transmission and Distribution Labor			174,618			221,010	487,751	413,049	687,066	

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

DEVEL OF LABOR ALLOC CONT-21

CUSTOMER ACCOUNTS LABOR

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 901-Supervision	LABCA	221,538	161,416	21,953	0	16,617	7,832	3,465
2 902-Meter Reading Expenses	EXP902	647,138	502,943	75,485	0	38,833	10,753	2,829
3 903-Cust Records & Collection Exp	EXP903	4,970,313	3,590,011	481,181	3	382,529	187,843	85,033
4 Total Customer Accounts Labor		5,838,988	4,254,370	578,619	3	437,979	206,428	91,327

SALES EXPENSES LABOR

5 911-Supervision	LABSA	80,141	51,368	5,156	0	4,424	5,167	3,758
6 912-Demonstrating & Selling Exp	EXP912	117,959	75,897	7,729	0	6,499	7,456	5,405
7 913-Advertising Exp	EXP913	0	0	0	0	0	0	0
8 916-Miscellaneous Sales Exp	EXP916	7,065	4,240	315	0	403	605	458
9 Total Sales Expenses Labor		205,166	131,506	13,199	0	11,326	13,228	9,620

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 41 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOC

HIGH WINTER
LRG HI ANNUAL
G-43 & T-43

LOW WINTER
LOW ANNUAL
G-50 & T-50

LOW WINTER
MED ANNUAL
G-51 & T-51

LOW WINTER
HIGH ANNUAL
G-52 & T-52

LOW WINTER
LRG HI ANNUAL
G-53 & T-53

DEVEL OF LABOR ALLOC CONT-21

CUSTOMER ACCOUNTS LABOR

	LABCA	3,288	2,695	1,464	2,241
1 901-Supervision					
2 902-Meter Reading Expenses	565				
3 903-Cust Records & Collection Exp	349				
4 Total Customer Accounts Labor	13,985	86,673	71,028	38,587	59,075

SALES EXPENSES LABOR

	LABSA	894	2,001	2,130	4,454
5 911-Supervision	789				
6 912-Demonstrating & Selling Exp	1,135				
7 913-Advertising Exp	0				
8 916-Miscellaneous Sales Exp	96	72	201	222	454
9 Total Sales Expenses Labor	2,020	2,288	5,124	5,453	11,402

DELIVERY COMPONENTS

DEVELOPMENT OF LABOR ALLOC CONT-22

ADMINISTRATIVE & GENERAL LABOR

ALLOCATION	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 920-Administrative & General Salaries	EXP920 949,139	592,308	64,120	2	66,619	75,824	48,498
2 921-Office Supplies & Expenses	EXP921 5,207	3,249	352	0	365	415	266
3 922-Administrative Exp Transferred-Cr	EXP922 0	0	0	0	0	0	0
4 923-Outside Services Employed	EXP923 212	136	14	0	14	16	10
5 924-Property Insurance	EXP924 0	0	0	0	0	0	0
6 925-Injuries & Damages	EXP925 21,840	13,629	1,475	0	1,533	1,740	1,116
7 926-Employees Pensions & Benefits	EXP926 13,038	8,064	780	0	914	1,105	701
8 928-Regulatory Commission Expenses	EXP928 0	0	0	0	0	0	0
9 929-Duplicate Charges-Cr	EXP929 0	0	0	0	0	0	0
10 930-Miscellaneous General Exp	EXP930 103,138	64,363	6,968	0	7,239	8,218	5,270
11 931 Rents	EXP931 0	0	0	0	0	0	0
12 Total Operation Labor	1,092,574	681,749	73,710	2	76,685	87,117	55,861
Maintenance Labor							
13 932 Maintenance of General Plant	EXP932 287,232	175,020	17,335	1	20,256	25,543	15,512
14 Total Administrative & General Labor	1,379,806	856,769	91,045	3	96,940	112,660	71,373
15 Total Gas Operation & Maintenance Labor	22,646,110	14,083,458	1,430,391	39	1,596,979	1,871,146	1,162,844

CONSTRUCTION LABOR CAPITALIZED

16 Distribution Related							
17 Distribution/Transmission	DISTR 3,541,199	1,873,499	35,920	14	213,338	433,839	339,474
18 MetScan	PLT397M 8,430	5,139	791	0	684	807	237
19 ERT	PLT397E 794,442	484,276	74,584	0	64,506	76,073	22,343
20 Conversion Burners	CUST3863 12,391	6,555	126	0	746	1,518	1,188
Total Capitalized Labor	4,356,461	2,369,470	111,421	14	279,275	512,237	363,242
21 Sum of Allocated Labor Expense	27,002,571	16,452,928	1,541,812	53	1,876,254	2,383,384	1,526,086

DELIVERY COMPONENTS		ALLOC				
DEVEL OF LABOR ALLOC CONT-22		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
ADMINISTRATIVE & GENERAL LABOR						
	Operation Labor					
1	920-Administrative & General Salaries	8,548	13,845	24,717	20,861	33,998
2	921-Office Supplies & Expenses	47	76	136	114	187
3	922-Administrative Exp. Transferred-Cr	0	0	0	0	0
4	923-Outside Services Employed	2	3	5	4	7
5	924-Property Insurance	0	0	0	0	0
6	925-Injuries & Damages	197	319	569	480	782
7	926-Employees Pensions & Benefits	129	186	355	299	504
8	928-Regulatory Commission Expenses	0	0	0	0	0
9	929-Duplicate Charges-Cr	0	0	0	0	0
10	930-Miscellaneous General Exp	929	1,504	2,686	2,267	3,694
11	931 Rents	0	0	0	0	0
12	Total Operation Labor	9,851	15,933	28,467	24,026	39,173
	Maintenance Labor					
13	932 Maintenance of General Plant	2,814	4,390	8,498	6,765	11,099
14	Total Administrative & General Labor	12,664	20,323	36,965	30,791	50,272
15	Total Gas Operation & Maintenance Labor	211,941	333,575	614,081	503,260	838,395
CONSTRUCTION LABOR CAPITALIZED						
	Distribution Related					
16	Distribution/Transmission	71,130	30,148	121,435	141,357	281,044
17	Metscan	17	219	346	129	60
18	ERT	1,588	20,646	32,595	12,201	5,628
19	Conversion Burners	249	105	425	495	983
20	Total Capitalized Labor	72,984	51,119	154,802	154,182	287,715
21	Sum of Allocated Labor Expense	284,926	384,694	768,883	657,443	1,126,110

DELIVERY COMPONENTS

REVENUE REQUIREMENTS-23

PRESERVE RATES

[illegible]

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 45 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
-------	---	---	---	--	--

REVENUE REQUIREMENTS-23

PRESENT RATES

1	Rate Base	4,945,346	4,722,538	11,146,685	11,106,633	19,854,575
2	Net Operating Income (Present Rates)	130,557	79,137	388,771	787,954	1,647,190
3	Rate of Return (Present Rates)	2.64%	1.68%	3.49%	7.09%	8.30%
4	Relative Rate of Return	0.459	0.291	0.606	1.233	1.442
5	Sales Revenues (Present Rates)	925,505	1,770,936	3,164,436	3,174,364	5,509,578
6	Annual Booked Therm Sales	4,431,946	4,446,204	13,718,907	6,665,891	3,153,997
7	Sale Revenue \$/Therm (Present Rates)	\$0.2088	\$0.3983	\$0.2307	\$0.4762	\$1.7469

CLAIMED RATE OF RETURN

8	Claimed Rate of Return	9.05%	9.05%	9.05%	9.05%	9.05%
9	Return Req for Claimed Rate of Return	447,554	427,390	1,008,775	1,005,150	1,796,839
10	Sales Revenue Required Claimed ROR	1,447,096	2,343,956	4,184,599	3,531,742	5,755,813
11	Revenue Deficiency Sales Revenues	521,591	573,020	1,020,162	357,378	246,235
12	Percent Increase Required	56.36%	32.36%	32.24%	11.26%	4.47%
13	Annual Booked Therm Sales	4,431,946	4,446,204	13,718,907	6,665,891	3,153,997
14	Sales Revenue Required \$/Therm	\$0.3265	\$0.5272	\$0.3050	\$0.5298	\$1.8249
15	Revenue Deficiency \$/Therm	\$0.1177	\$0.1289	\$0.0744	\$0.0536	\$0.0781

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 46 of 322

DELIVERY COMPONENTS

ALLOCATION FACTOR TABLE-24

DEMAND RELATED

[illegible]

DISTRIBUTION ALLOCATORS

	DISTR	100.0000%	52.9058%	1.0143%	0.0004%	6.0245%	12.2512%	9.5864%
1 Distribution Allocator 2	PENSION	175,507,389	111,553,441	11,410,115	356	12,507,429	13,738,676	8,533,527
3 Pension & PBOP Expense Allocator								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 47 of 322

DELIVERY COMPONENTS		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
ALLOCATION FACTOR TABLE-24							
DEMAND RELATED							
PRODUCTION ALLOCATORS							
1	Design Day Remaining Demands - Sales		4,337	1,551	4,381	1,289	1,637
2	LPG Production Allocator - Prod Function		4,337	1,551	4,381	1,289	1,637
3	LNG Production Allocator - Prod Function		4,337	1,551	4,381	1,289	1,637
4	LPG & LNG Prod Alloc - Distr Function		2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
5	LPG & LNG Distr Pressure Support %						
6							
7							
8	Design Day Base Demands - Sales Cust		554	874	2,853	1,598	414
9	Design Day Remaining Demands - Sales		4,337	1,551	4,381	1,289	1,637
10	Total Design Day Sendout - Sales Cust		4,891	2,425	7,234	2,887	2,051
11							
12							
13							
GAS COST ALLOCATORS							
14	Base Demand Gas Costs		122,834	195,298	638,567	342,813	92,342
15	Remaining Demand Gas Costs		537,777	192,307	543,192	159,796	203,086
16							
17							
18							
DISTRIBUTION ALLOCATORS							
1	Distribution Allocator		2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
2							
3	Pension & PBOP Expense Allocator		1,520,567	2,516,064	4,358,376	3,576,860	5,791,979
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOCATION FACTOR TABLE CONT-25

COMMODITY RELATED

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Base Commodity Gas Costs	EBASE	80,774,205	49,657,716	3,867,284	2,167	2,158,849	4,619,659	2,632,837
2 Remaining Commodity Gas Costs	EREMAIN	191,688,704	134,395,424	1,128,159	0	14,855,080	23,713,567	10,221,852
3								
4								
5								
6								
7 Annual Therm Firm Sales		365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
8 Annual Therm Firm Transportation		127,549,264	79,549	1,908	0	1,900,026	15,524,113	26,651,718
9 Total Annual Therm Firm Throughput		493,498,312	247,783,289	6,396,166	2,728	25,211,236	54,160,592	44,135,406
10								
11 Annual Base Therm - Sales Actual		378,169,527	256,470,043	6,394,258	2,728	24,381,470	40,254,087	18,083,791
12 Weather Normalization Adj Base -Sales		(12,220,479)	(8,766,303)	0	0	(1,070,260)	(1,617,608)	(600,103)
13								
14 Annual Base Therm - Trans Actual		129,319,171	81,962	1,908	0	1,982,789	16,124,058	27,584,660
15 Weather Normalization Adj Base - Trans		(1,769,907)	(2,413)	0	0	(82,763)	(599,945)	(932,942)
16								
17 Annual Therm Firm Sales Sendout		369,645,503	250,205,798	6,458,846	2,756	23,546,677	39,026,746	17,660,291
18 Annual Therm Firm Trans Sendout		128,837,641	80,353	1,927	0	1,919,218	15,680,922	26,920,927
19 Tot Ann Therm Firm Throughput Sendout		498,483,144	250,286,151	6,460,773	2,756	25,465,895	54,707,668	44,581,218
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 49 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOCATION FACTOR TABLE CONT-25		ALLOC	G-43 & T-43	G-50 & T-50	G-51 & T-51	G-52 & T-52	G-53 & T-53
COMMODITY RELATED							
1	Base Commodity Gas Costs	EBASE	1,577,413	2,506,976	8,208,799	4,357,592	1,184,913
2	Remaining Commodity Gas Costs	EREMAIN	1,678,560	945,632	2,525,235	933,008	1,292,187
3							
4							
5							
6							
7	Annual Therm Firm Sales		4,431,946	4,446,204	13,718,907	6,665,891	3,153,997
8	Annual Therm Firm Transportation		5,036,085	797,782	7,650,476	18,839,377	51,068,230
9	Total Annual Therm Firm Throughput		9,468,031	5,243,986	21,369,383	25,505,268	54,222,227
10							
11	Annual Base Therm - Sales Actual		4,598,151	4,446,204	13,718,907	6,665,891	3,153,997
12	Weather Normalization Adj Base -Sales		(166,205)	0	0	0	0
13							
14	Annual Base Therm - Trans Actual		5,187,929	797,782	7,650,476	18,839,377	51,068,230
15	Weather Normalization Adj Base -Trans		(151,844)	0	0	0	0
16							
17	Annual Therm Firm Sales Sendout		4,476,713	4,491,115	13,857,482	6,733,223	3,185,856
18	Annual Therm Firm Trans Sendout		5,086,955	805,840	7,727,754	19,029,674	51,584,071
19	Total Ann Therm Firm Throughput Sendout		9,563,668	5,296,955	21,585,236	25,762,897	54,769,927
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOCATION FACTOR TABLE CONT-26

CUSTOMER RELATED

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Act 380 Gas Services	CUST380	228,746,364	166,042,757	24,984,666	0	17,876,084	6,169,869	4,778,556
2 Act 381 Gas Meters	CUST381	24,915,976	15,188,303	2,339,184	0	2,023,106	2,385,861	700,742
3 Act 382 Meter Installations	CUST382	45,198,411	27,552,090	4,243,357	0	3,669,983	4,328,031	1,271,169
4 Act 383 Gas Regulators	CUST383	13,612,047	8,297,644	1,277,938	0	1,105,260	1,303,439	382,828
5 Customer Deposits	CUSTDEP	2,065,320	26,212	151	0	747,953	611,185	143,020
6 Transportation Customers	CUSTTR	38,807	439	59	0	9,286	12,352	4,096
7 Act 386.0 Gas Water Heaters	CUST3860	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
8 Act 386.2 Cascade Diamond Boilers	CUST3862	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
9 Act 386.3 Conversion Burners	CUST3863	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
10 Act 487-Return Check Charges	CUST487	27,736	20,434	1,226	0	2,093	1,971	653
11 Act 488-Rental Rev-W/H & Conv Burn	CUST488	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
12 Act 882-Revenue Guardian Care & C/S	CUST882	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
13 Act 902 Meter Reading Expense	CUST902	283,675	220,467	33,089	0	17,023	4,714	1,240
14 Act 903-Cust Records & Collection Exp	CUST903	281,020	222,208	31,413	0	16,684	4,683	619
15 Act 912-Demonstrating & Selling Exp	CUST912	100,0000%	64,3422%	6,5521%	0.0000%	5,5093%	6,3206%	4,5820%
16 Act 913-Advertising Expense	CUST913	100,0000%	64,3422%	6,5521%	0.0000%	5,5093%	6,3206%	4,5820%
17 Act 879-Customer Installations Exp	CUST879	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
18 Act 903 Collections Expense	CUST903C	11,447,296	8,185,483	1,185,903	3	1,117,566	384,625	103,390
19 Number of Meters		282,127	220,467	33,089	0	16,910	4,443	1,015
20 Average Number of Bills		281,032	222,208	31,413	12	16,684	4,683	619
21 Average Number of Customers		279,901	219,642	33,050	12	16,541	4,664	617
22								
23 TOTAL ANNUAL BILL COUNTS		3,372,382	2,666,494	376,961	144	200,206	56,195	7,432
24 Bi-Monthly Sales Bills		23,554	0	23,554	0	0	0	0
25 Sales Bills		3,309,471	2,665,888	353,282	144	190,733	43,802	3,331
26 Farm Sales Bills		484	166	66	0	170	24	0
27 Transportation Bills		36,729	428	59	0	9,141	11,985	3,777
28 Farm Transportation Bills		80	12	0	0	12	23	24
29 Daily Metered Transportation Bills		2,064	0	0	0	150	361	300
30								
31 TOTAL ANNUAL CUSTOMER COUNTS		3,358,808	2,635,699	396,597	143	198,495	55,963	7,406
32 Bi-Monthly Sales Customers		47,645	0	47,645	0	0	0	0
33 Sales Customers		3,271,874	2,635,095	348,828	143	189,039	43,587	3,310
34 Farm Sales Customers		482	165	65	0	170	24	0
35 Transportation Customers		36,667	427	59	0	9,124	11,968	3,772
36 Farm Transportation Customers		80	12	0	0	12	23	24
37 Daily Metered Transportation Customers		2,060	0	0	0	150	361	300

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 51 of 322

DELIVERY COMPONENTS		ALLOCATION FACTOR TABLE CONT-26						
		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53	
CUSTOMER RELATED								
1	Acct 380 Gas Services	CUST380	203,287	3,595,851	2,310,269	1,922,133	892,892	
2	Acct 381 Gas Meters	CUST381	49,813	647,509	1,022,284	382,655	176,519	
3	Acct 382 Meter Installations	CUST382	90,363	1,174,602	1,854,457	694,148	320,211	
4	Acct 383 Gas Regulators	CUST383	27,214	353,746	558,492	209,051	96,433	
5	Customer Deposits	CUSTDEP	79,450	140,898	246,296	70,155	0	
6	Transportation Customers	CUSTTR	120	4,054	5,806	1,889	706	
7	Acct 386.0 Gas Water Heaters	CUST3860	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%	
8	Acct 386.2 Cascade Diamond Boilers	CUST3862	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%	
9	Acct 386.3 Conversion Burners	CUST3863	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%	
10	Acct 487-Return Check Charges	CUST487	111	382	562	211	93	
11	Acct 488-Rental Rev-W/H & Conv Burn	CUST488	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%	
12	Acct 882-Revenue Guardian Care & C/S	CUST882	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%	
13	Acct 902 Meter Reading Expense	CUST902	153	3,563	2,143	663	622	
14	Acct 903-Cust Records & Collection Exp	CUST903	15	3,326	1,756	249	67	
15	Acct 912-Demonstrating & Selling Exp	CUST912	0.9620%	1.1208%	2.4771%	2.6285%	5.5055%	
16	Acct 913-Advertising Expense	CUST913	0.9620%	1.1208%	2.4771%	2.6285%	5.5055%	
17	Acct 879-Customer Installations Exp	CUST879	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%	
18	Acct 903 Collections Expense	CUST903C	14,220	220,619	136,388	42,482	56,618	
19	Number of Meters		63	3,546	2,076	427	91	
20	Average Number of Bills		15	3,326	1,756	249	67	
21	Average Number of Customers		15	3,300	1,746	248	66	
22								
23	TOTAL ANNUAL BILL COUNTS		181	39,908	21,073	2,989	799	
24	Bi-Monthly Sales Bills		0	0	0	0	0	
25	Sales Bills		61	35,789	15,250	1,100	91	
26	Farm Sales Bills		0	58	0	0	0	
27	Transportation Bills		0	4,039	5,734	1,566	0	
28	Farm Transportation Bills		0	0	0	9	0	
29	Daily Metered Transportation Bills		120	22	89	314	708	
30								
31	TOTAL ANNUAL CUSTOMER COUNTS		181	39,595	20,955	2,979	795	
32	Bi-Monthly Sales Customers		0	0	0	0	0	
33	Sales Customers		61	35,483	15,149	1,090	89	
34	Farm Sales Customers		0	58	0	0	0	
35	Transportation Customers		0	4,032	5,719	1,566	0	
36	Farm Transportation Customers		0	0	0	9	0	
37	Daily Metered Transportation Customers		120	22	87	314	706	

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOCATION FACTOR TABLE CONT-27

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Residential Heating Rate R-3 & R-4	C904R3	331,383,347	100,277,501	0	0	0	0	0
2 Residential Non-Heating Rate R-1 & R-2	C904R1	16,939,304	0	10,855,556	0	0	0	0
3 Outdoor Lighting	C904OL	2,692	0	0	343	0	0	0
4 High Winter Low Annual Rate G40 & T40	C904R40	33,596,561	0	0	0	0	0	0
5 High Winter Med Annual Rate G41 & T41	C904R41	48,258,681	0	0	0	0	0	0
6 High Winter High Annual Rate G42 & T42	C904R42	23,883,250	0	0	0	11,278,538	0	0
7 High Wint Large Annual Rate G43 & T43	C904R43	5,437,151	0	0	0	0	12,803,042	0
8 Low Winter Low Annual Rate G50 & T50	C904R50	6,356,277	0	0	0	0	0	8,210,675
9 Low Winter Med Annual Rate G51 & T51	C904T51	16,274,168	0	0	0	0	0	0
10 Low Winter High Annual Rate G52 & T52	C904R52	9,370,069	0	0	0	0	0	0
11 Low Wint Large Annual Rate G53 & T53	C904R53	8,564,507	0	0	0	0	0	0

LATE PAYMENT CHARGES

15 High Winter Low Annual Rate G40 & T40	C487R40	33,596,561	0	0	0	11,278,538	0	0
16 High Winter Med Annual Rate G41 & T41	C487R41	48,258,681	0	0	0	0	12,803,042	0
17 High Winter High Annual Rate G42 & T42	C487R42	23,883,250	0	0	0	0	0	8,210,675
18 High Wint Large Annual Rate G43 & T43	C487R43	5,437,151	0	0	0	0	0	0
19 Low Winter Low Annual Rate G50 & T50	C487R50	6,356,277	0	0	0	0	0	0
20 Low Winter Med Annual Rate G51 & T51	C487T51	16,274,168	0	0	0	0	0	0
21 Low Winter High Annual Rate G52 & T52	C487R52	9,370,069	0	0	0	0	0	0
22 Low Wint Large Annual Rate G53 & T53	C487R53	8,564,507	0	0	0	0	0	0

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 53 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOCATION FACTOR TABLE CONT-27

ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
INTERNALLY DEVELOPED					
UNCOLLECTIBLE ACCOUNTS					
1 Residential Heating Rate R-3 & R-4	0	0	0	0	0
2 Residential Non-Heating Rate R-1 & R-2	0	0	0	0	0
3 Outdoor Lighting	0	0	0	0	0
4 High Winter Low Annual Rate G40 & T40	0	0	0	0	0
5 High Winter Med Annual Rate G41 & T41	0	0	0	0	0
6 High Winter High Annual Rate G42 & T42	0	0	0	0	0
7 High Wint Large Annual Rate G43 & T43	1,447,096	0	0	0	0
8 Low Winter Low Annual Rate G50 & T50	0	2,343,956	0	0	0
9 Low Winter Med Annual Rate G51 & T51	0	0	4,184,599	0	0
10 Low Winter High Annual Rate G52 & T52	0	0	0	3,531,742	0
11 Low Wint Large Annual Rate G53 & T53	0	0	0	0	5,755,813
LATE PAYMENT CHARGES					
15 High Winter Low Annual Rate G40 & T40	0	0	0	0	0
16 High Winter Med Annual Rate G41 & T41	0	0	0	0	0
17 High Winter High Annual Rate G42 & T42	0	0	0	0	0
18 High Wint Large Annual Rate G43 & T43	1,447,096	0	0	0	0
19 Low Winter Low Annual Rate G50 & T50	0	2,343,956	0	0	0
20 Low Winter Med Annual Rate G51 & T51	0	0	4,184,599	0	0
21 Low Winter High Annual Rate G52 & T52	0	0	0	3,531,742	0
22 Low Wint Large Annual Rate G53 & T53	0	0	0	0	5,755,813

6/30/2005 11:42 AM

Page 27-2

BRK7.xls COST OF SERVICE

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOC TOTAL COMPANY
INPUT

ALLOCATION FACTOR TABLE CONT-27

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

1	Residential Heating Rate R-3 & R-4	C904R3	Page 23 , Line 10, Col 2
2	Residential Non-Heating Rate R-1 & R-2	C904R1	Page 23 , Line 10, Col 3
3	Outdoor Lighting	C904OL	Page 23 , Line 10, Col 4
4	High Winter Low Annual Rate G40 & T40	C904R40	Page 23 , Line 10, Col 5
5	High Winter Med Annual Rate G41 & T41	C904R41	Page 23 , Line 10, Col 6
6	High Winter High Annual Rate G42 & T42	C904R42	Page 23 , Line 10, Col 7
7	High Wint Large Annual Rate G43 & T43	C904R43	Page 23 , Line 10, Col 8
8	Low Winter Low Annual Rate G50 & T50	C904R50	Page 23 , Line 10, Col 9
9	Low Winter Med Annual Rate G51 & T51	C904T51	Page 23 , Line 10, Col 10
10	Low Winter High Annual Rate G52 & T52	C904R52	Page 23 , Line 10, Col 11
11	Low Wint Large Annual Rate G53 & T53	C904R53	Page 23 , Line 10, Col 12
12			
13	LATE PAYMENT CHARGES		
14			
15	High Winter Low Annual Rate G40 & T40	C487R40	Page 23 , Line 10, Col 5
16	High Winter Med Annual Rate G41 & T41	C487R41	Page 23 , Line 10, Col 6
17	High Winter High Annual Rate G42 & T42	C487R42	Page 23 , Line 10, Col 7
18	High Wint Large Annual Rate G43 & T43	C487R43	Page 23 , Line 10, Col 8
19	Low Winter Low Annual Rate G50 & T50	C487R50	Page 23 , Line 10, Col 9
20	Low Winter Med Annual Rate G51 & T51	C487T51	Page 23 , Line 10, Col 10
21	Low Winter High Annual Rate G52 & T52	C487R52	Page 23 , Line 10, Col 11
22	Low Wint Large Annual Rate G53 & T53	C487R53	Page 23 , Line 10, Col 12
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED-28

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Total Gas Plant In Service	PLANT	754,551,098	446,150,209	40,367,793	1,513	50,799,344	63,732,988	44,970,985
2	Sum of Allocated Labor Expense	LABOR	28,074,804	16,452,928	1,541,812	53	1,876,254	2,383,384	1,526,086
3	Acct 301 Organization	PLT301	689,189	407,503	36,871	1	46,399	58,212	41,075
4	Acct 303 Misc. Intangible Plant	PLT303	34,573,711	20,261,541	1,898,719	65	2,310,580	2,935,102	1,879,353
5	Acct 305 Structures & Improvements	PLT305	2,368,951	358,447	6,872	3	40,817	83,004	64,950
6	Acct 311 L.P. Gas Equipment	PLT311	4,339,415	656,599	12,589	5	74,768	152,046	118,974
7	Acct 320 Other Equipment	PLT320	819,245	123,960	2,377	1	14,116	28,705	22,461
8	Acct 321 L.N.G. Equipment	PLT321	15,428,067	2,334,429	44,757	17	265,825	540,575	422,993
9	Acct 365 Right of Way	PLT365	79,051	41,823	802	0	4,762	9,685	7,578
10	Acct 366 Structures & Improvements	PLT366	2,108,612	1,115,578	21,388	8	127,032	258,330	202,140
11	Acct 367 Gas Mains	PLT367	309,786,822	163,895,149	3,142,289	1,207	18,662,957	37,952,606	29,697,435
12	Acct 368 Compressor Station Equipment	PLT368	327,265	173,142	3,320	1	19,716	40,094	31,373
13	Acct 369 Meas. & Reg. Station Equip	PLT369	12,355,156	6,536,592	125,323	48	744,330	1,513,655	1,184,416
14	Acct 380 Gas Services	PLT380	228,746,364	166,042,757	24,984,666	0	17,876,084	6,169,869	4,778,556
15	Acct 381 Gas Meters	PLT381	24,915,974	15,188,301	2,339,184	0	2,023,106	2,385,861	700,742
16	Acct 382 Meter Installations	PLT382	45,198,411	27,552,090	4,243,357	0	3,669,983	4,328,031	1,271,169
17	Acct 383 Gas Regulators	PLT383	13,612,047	8,297,644	1,277,938	0	1,105,260	1,303,439	382,828
18	Acct 386 Gas Water Heaters	PLT386	14,053,382	7,435,052	142,549	55	846,639	1,721,708	1,347,215
19	Acct 386 Cascade Diamond Boilers	PLT3862	569,752	301,432	5,779	2	34,324	69,801	54,619
20	Acct 386 Conversion Burners	PLT3863	7,835,153	4,145,249	79,475	31	472,025	959,900	751,110
21	Acct 387 Other Equipment	PLT387	1,719,559	909,746	17,442	7	103,594	210,667	164,844
22	Acct 379 Other Equipment	PLT379	510,252	269,953	5,176	2	30,740	62,512	48,915
23	Acct 390 Structures & Improvements	PLT390	7,303,824	4,280,325	401,111	14	488,118	620,051	397,020
24	Acct 391 Office Equipment	PLT391	11,420,359	6,692,775	627,183	21	763,229	969,520	620,786
25	Acct 392 Transportation Equipment	PLT392	2,363,594	1,385,158	129,804	4	157,960	200,655	128,480
26	Acct 393 Stores Equipment	PLT393	50,473	29,579	2,772	0	3,373	4,285	2,744
27	Acct 394 Tools, Shop & Garage Equip	PLT394	1,847,938	1,082,963	101,485	3	123,499	156,879	100,450
28	Acct 396 Power Operated Equipment	PLT396	406,425	238,181	22,320	1	27,162	34,503	22,092
29	Acct 397 Communication Equip-Other	PLT397O	7,400,316	4,336,873	406,411	14	494,567	628,243	402,265
30	Acct 398 Miscellaneous Equipment	PLT398	25,220	14,780	1,385	0	1,685	2,141	1,371
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	137,472	20,801	399	0	2,389	4,817	3,769
32	Acct 717-LPG Gas Expenses	EXP717	476	72	1	0	8	17	13
33	Acct 719-Handling Expense	EXP719	20,028	3,031	58	0	345	702	549
34	Acct 735-Miscellaneous Production Exp	EXP735	213,302	32,275	619	0	3,675	7,474	5,848
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	47,828	7,237	139	0	824	1,676	1,311
36	Acct 741-Maintenance of Struct & Improv	EXP741	12,023	1,819	35	0	207	421	330
37	Acct 742-Maintenance of Production Eq	EXP742	107,427	16,255	312	0	1,851	3,764	2,945
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	541,175	81,886	1,570	1	9,324	18,962	14,837
39	Acct 754-Liquefaction Expense	EXP754	165,884	25,100	481	0	2,858	4,548	5,812
40	Acct 757-Vaporization Expense	EXP757	29,356	4,442	85	0	506	1,029	805

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 56 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED-28

	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Total Gas Plant In Service	PLANT	8,205,107	9,757,141	19,894,459	19,025,787	32,439,258
2 Sum of Allocated Labor Expense	LABOR	284,926	384,694	768,883	657,443	1,126,110
3 Acct 301 Organization	PLT301	7,494	8,912	18,171	17,378	29,629
4 Acct 303 Misc. Intangible Plant	PLT303	350,882	473,745	948,868	809,631	1,386,788
5 Acct 305 Structures & Improvements	PLT305	13,609	5,768	23,234	27,045	53,771
6 Acct 311 L.P. Gas Equipment	PLT311	24,929	10,566	42,559	49,541	98,497
7 Acct 320 Other Equipment	PLT320	4,706	1,995	8,035	9,353	18,595
8 Acct 321 L.N.G. Equipment	PLT321	88,630	37,566	151,312	176,135	350,188
9 Acct 365 Right of Way	PLT365	1,588	673	2,711	3,156	6,274
10 Acct 366 Structures & Improvements	PLT366	42,355	17,952	72,309	84,171	167,348
11 Acct 367 Gas Mains	PLT367	6,222,526	2,637,410	10,623,268	12,366,039	24,585,934
12 Acct 368 Compressor Station Equipment	PLT368	6,574	2,786	11,223	13,064	25,973
13 Acct 369 Meas. & Reg. Station Equip	PLT369	248,172	105,187	423,685	493,192	980,555
14 Acct 380 Gas Services	PLT380	203,287	3,565,851	2,310,269	1,922,133	892,892
15 Acct 381 Gas Meters	PLT381	49,813	647,509	1,022,284	382,655	176,519
16 Acct 382 Meter Installations	PLT382	90,363	1,174,602	1,854,457	694,148	320,211
17 Acct 383 Gas Regulators	PLT383	27,214	353,746	558,492	209,051	96,435
18 Acct 386 Gas Water Heaters	PLT386	282,283	119,645	481,921	560,982	1,115,333
19 Acct 386 Cascade Diamond Boilers	PLT3862	11,444	4,851	19,538	22,743	45,218
20 Acct 386 Conversion Burners	PLT3863	157,381	66,706	268,885	312,763	621,829
21 Acct 387 Other Equipment	PLT387	34,540	14,640	58,967	68,641	136,471
22 Acct 379 Other Equipment	PLT379	10,249	4,344	17,498	20,368	40,496
23 Acct 390 Structures & Improvements	PLT390	74,125	100,080	200,029	171,038	292,964
24 Acct 391 Office Equipment	PLT391	115,903	156,487	312,769	267,437	458,083
25 Acct 392 Transportation Equipment	PLT392	23,988	32,387	64,732	55,350	94,806
26 Acct 393 Stores Equipment	PLT393	512	692	1,382	1,182	2,025
27 Acct 394 Tools, Shop & Garage Equip	PLT394	18,754	25,321	50,609	43,274	74,123
28 Acct 396 Power Operated Equipment	PLT396	4,125	5,569	11,131	9,517	16,302
29 Acct 397 Communication Equip-Other	PLT397O	75,104	101,402	202,672	173,297	296,834
30 Acct 398 Miscellaneous Equipment	PLT398	256	346	691	591	1,012
31 LPG Gas Prod Labor Accts 717 to 735	LABPO	790	335	1,348	1,569	3,120
32 Acct 717-LPG Gas Expenses	EXP717	3	1	5	5	11
33 Acct 719-Handling Expense	EXP719	115	49	196	229	455
34 Acct 735-Miscellaneous Production Exp	EXP735	1,225	519	2,092	2,435	4,842
35 LPG Gas Prod Labor Accts 741 to 742	LABPM	275	116	469	546	1,086
36 Acct 741-Maintenance of Struct & Improv	EXP741	69	29	118	137	273
37 Acct 742-Maintenance of Production Eq	EXP742	617	262	1,054	1,226	2,438
38 LNG Gas Prod Labor Accts 754 to 777	LABLO	3,109	1,318	5,308	6,178	12,284
39 Acct 754-Liquefaction Expense	EXP754	953	404	1,627	1,894	3,765
40 Acct 757-Vaporization Expense	EXP757	169	71	288	335	666

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 57 of 322

DELIVERY COMPONENTS

INTERNALLY DEVELOPED-28		ALLOC	TOTAL COMPANY INPUT
1	Total Gas Plant In Service	PLANT	Page 4, Line 18
2	Sum of Allocated Labor Expense	LABOR	Page 22, Line 21
3	Acct 301 Organization	PLT301	Page 2, Line 3
4	Acct 303 Misc. Intangible Plant	PLT303	Page 2, Line 4
5	Acct 305 Structures & Improvements	PLT305	Page 2, Line 13
6	Acct 311 L.P. Gas Equipment	PLT311	Page 2, Line 14
7	Acct 320 Other Equipment	PLT320	Page 2, Line 18
8	Acct 321 L.N.G. Equipment	PLT321	Page 2, Line 19
9	Acct 365 Right of Way	PLT365	Page 3, Line 2
10	Acct 366 Structures & Improvements	PLT366	Page 3, Line 3
11	Acct 367 Gas Mains	PLT367	Page 3, Line 11
12	Acct 368 Compressor Station Equipment	PLT368	Page 3, Line 12
13	Acct 369 Meas. & Reg. Station Equip	PLT369	Page 3, Line 13
14	Acct 380 Gas Services	PLT380	Page 3, Line 14
15	Acct 381 Gas Meters	PLT381	Page 3, Line 15
16	Acct 382 Meter Installations	PLT382	Page 3, Line 16
17	Acct 383 Gas Regulators	PLT383	Page 3, Line 17
18	Acct 386 Gas Water Heaters	PLT3860	Page 3, Line 18
19	Acct 386 Cascade Diamond Boilers	PLT3862	Page 3, Line 19
20	Acct 386 Conversion Burners	PLT3863	Page 3, Line 20
21	Acct 387 Other Equipment	PLT387	Page 3, Line 22
22	Acct 379 Other Equipment	PLT379	Page 3, Line 24
23	Acct 390 Structures & Improvements	PLT390	Page 4, Line 2
24	Acct 391 Office Equipment	PLT391	Page 4, Line 6
25	Acct 392 Transportation Equipment	PLT392	Page 4, Line 7
26	Acct 393 Stores Equipment	PLT393	Page 4, Line 8
27	Acct 394 Tools, Shop & Garage Equip	PLT394	Page 4, Line 9
28	Acct 396 Power Operated Equipment	PLT396	Page 4, Line 10
29	Acct 397 Communication Equip-Other	PLT3970	Page 4, Line 11 & 12
30	Acct 398 Miscellaneous Equipment	PLT398	Page 4, Line 16
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	Pg 19, Ln 2 to 4
32	Acct 717-LPG Gas Expenses	EXP717	Page 9, Line 2
33	Acct 719-Handling Expense	EXP719	Page 9, Line 3
34	Acct 735-Miscellaneous Production Exp	EXP735	Page 9, Line 6
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	Pg 19, Ln 9 to 10
36	Acct 741-Maintenance of Struct & Improv	EXP741	Page 9, Line 9
37	Acct 742-Maintenance of Production Eq	EXP742	Page 9, Line 10
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	Pg 19, Ln 14 to 18
39	Acct 754-Liquefaction Expense	EXP754	Page 9, Line 14
40	Acct 757-Vaporization Expense	EXP757	Page 9, Line 15

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-29

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 759-Handling Expense	EXP759	26,304	3,980	76	0	453	922	721
2 Acct 775-Miscellaneous Production Exp	EXP775	644,763	97,560	1,870	1	11,109	22,592	17,678
3 Acct 777-Lease Expense	EXP777	914,499	138,373	2,653	1	15,073	32,043	25,073
4 LNG Gas Prod Labor Accts 781 to 782	LABL	110,159	16,668	320	0	1,898	3,860	3,020
5 Acct 781-Maintenance of Struct & Improv	EXP781	11,060	1,673	32	0	191	388	303
6 Acct 782-Maintenance of Production Eq	EXP782	262,396	39,703	761	0	4,521	9,194	7,194
7 Total Intangible Plant	INTPLT	35,262,900	20,669,043	1,935,590	66	2,336,979	2,993,314	1,920,428
8 Total Production Plant	PRODPLT	23,368,270	3,535,866	67,792	26	402,634	818,788	640,691
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	10,090,604	5,827,173	522,637	20	707,331	1,048,766	631,652
10 Acct 851-Sys Control & Load Dispatch	EXP851	0	0	0	0	0	0	0
11 Acct 852-Communication System Exp	EXP852	143,882	76,122	1,459	1	8,668	17,627	13,793
12 Acct 857-Measuring & Regul Siat Exp	EXP857	405,485	214,525	4,113	2	24,428	49,677	38,871
13 Acct 874-Mains and Services Exp	EXP874	3,764,532	2,306,379	196,617	8	255,420	308,431	240,999
14 Acct 878-Meter & House Regulator Exp	EXP878	5,633,560	3,434,111	528,895	0	457,429	539,449	158,439
15 Acct 879-Customer Installations Exp	EXP879	5,923,626	3,133,941	60,086	23	356,866	725,715	567,863
16 Acct 880-Other Expenses	EXP880	580,567	335,260	28,941	1	40,341	60,024	37,311
17 Acct 881-Rents	EXP881	61,576	32,577	625	0	3,710	7,544	5,903
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	4,225,605	2,509,064	194,041	10	283,708	388,798	289,319
19 Acct 886-Maintenance of Struct & Improv	EXP886	41,025	21,705	416	0	2,472	5,026	3,933
20 Acct 887-Maintenance of Mains	EXP887	3,789,693	2,004,967	38,440	15	228,308	464,283	363,296
21 Acct 888-Maint of Compressor Station Eq	EXP888	0	0	0	0	0	0	0
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	229,637	121,491	2,329	1	13,834	28,133	22,014
23 Acct 892-Maintenance of Services	EXP892	1,687,229	1,224,728	184,286	0	131,854	45,509	35,247
24 Acct 893-Mnt of Meters and House Regul	EXP893	436,322	265,974	40,963	0	35,428	41,781	12,271
25 Acct 894-Maintenance of Other Equip	EXP894	403,627	213,542	4,094	2	24,316	49,449	38,693
26 Customer Accts Labor Accts 902 to 903	LABCA	5,617,451	4,092,955	556,665	3	421,361	198,596	87,862
27 Acct 902-Meter Reading Expenses	EXP902	695,743	540,719	81,154	0	41,749	11,561	3,041
28 Acct 903-Cust Records & Collection Exp	EXP903	7,500,932	5,417,854	726,172	4	577,292	283,482	128,327
29 Sales Expenses Labor Accts 912 to 916	LABSA	125,024	80,137	8,044	0	6,902	8,061	5,863
30 Acct 912-Demonstrating & Selling Exp	EXP912	159,642	102,717	10,460	0	8,795	10,090	7,315
31 Acct 913-Advertising Exp	EXP913	198,371	112,122	5,485	1	11,628	20,584	15,878
32 Acct 916-Miscellaneous Sales Exp	EXP916	7,065	4,240	315	0	403	605	458
33 Acct 920-Administrative & General Sal	EXP920	1,745,741	997,443	107,978	3	112,186	127,350	81,670
34 Acct 921-Office Supplies & Expenses	EXP921	3,909,418	2,233,676	241,807	8	251,229	285,187	182,892
35 Acct 922-Administrative Exp Transf-Cr	EXP922	(3,814,124)	(2,179,229)	(235,913)	(7)	(245,105)	(278,236)	(178,434)
36 Acct 923-Outside Services Employed	EXP923	24,687,388	13,950,968	1,491,137	108	1,480,712	1,622,989	1,053,260
37 Acct 924-Property Insurance	EXP924	0	0	0	0	0	0	0
38 Acct 925-Injuries & Damages	EXP925	2,903,441	1,658,903	179,585	6	186,582	211,802	135,830
39 Acct 926-Employees Pensions & Benef	EXP926	14,803,575	8,924,615	863,720	29	1,011,617	1,223,489	775,860
40 Acct 928-Regulatory Commission Exp	EXP928	690,943	394,776	42,736	1	44,402	50,403	32,824

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 59 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-29

	ALLOCC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Acct 759-Handling Expense	EXP759	151	64	258	300	597
2 Acct 775-Miscellaneous Production Exp	EXP775	3,704	1,570	6,324	7,361	14,635
3 Acct 777-Lease Expense	EXP777	5,254	2,227	8,969	10,440	20,757
4 LNG Gas Prod Labor Accts 781 to 782	LABLM	633	268	1,080	1,258	2,500
5 Acct 781-Maintenance of Struct & Improv	EXP781	64	27	108	126	251
6 Acct 782-Maintenance of Production Eq	EXP782	1,507	639	2,573	2,996	5,956
7 Total Intangible Plant	INTPLT	358,376	482,657	965,039	827,009	1,416,417
8 Total Production Plant	PRODPLT	134,244	56,899	229,186	266,784	530,416
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	113,739	162,290	353,072	277,486	446,438
10 Acct 851-Sys Control & Load Dispatch	EXP851	0	0	0	0	0
11 Acct 852-Communication System Exp	EXP852	2,890	1,225	4,934	5,743	11,419
12 Acct 857-Measuring & Regul Stat Exp	EXP857	8,145	3,452	13,905	16,186	32,181
13 Acct 874-Mains and Services Exp	EXP874	44,919	43,363	90,410	99,879	178,106
14 Acct 878-Meter & House Regulator Exp	EXP878	11,263	146,403	231,141	86,519	39,911
15 Acct 879-Customer Installations Exp	EXP879	118,985	50,432	203,134	236,459	470,123
16 Acct 880-Other Expenses	EXP880	6,811	8,958	19,882	16,270	26,767
17 Acct 881-Rents	EXP881	1,237	524	2,112	2,458	4,887
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	55,003	50,365	116,494	121,240	217,563
19 Acct 886-Maintenance of Struct & Improv	EXP886	824	349	1,407	1,638	3,256
20 Acct 887-Maintenance of Mains	EXP887	76,122	32,264	129,957	151,277	300,765
21 Acct 888-Maint of Compressor Station Eq	EXP888	0	0	0	0	0
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	4,613	1,955	7,875	9,167	18,225
23 Acct 892-Maintenance of Services	EXP892	1,499	26,302	17,041	14,178	6,586
24 Acct 893-Mnt of Meters and House Regul	EXP893	872	11,339	17,902	6,701	3,091
25 Acct 894-Maintenance of Other Equip	EXP894	8,107	3,436	13,841	16,112	32,033
26 Customer Accts Labor Accts 902 to 903	LABCA	14,334	83,385	68,333	37,123	56,834
27 Acct 902-Meter Reading Expenses	EXP902	375	8,737	5,255	1,625	1,526
28 Acct 903-Cust Records & Collection Exp	EXP903	21,106	113,575	95,748	53,744	83,629
29 Sales Expenses Labor Accts 912 to 916	LABSA	1,231	1,394	3,122	3,323	6,948
30 Acct 912-Demonstrating & Selling Exp	EXP912	1,536	1,789	3,954	4,196	8,789
31 Acct 913-Advertising Exp	EXP913	3,328	1,858	6,205	7,064	14,219
32 Acct 916-Miscellaneous Sales Exp	EXP916	96	72	200	222	454
33 Acct 920-Administrative & General Sal	EXP920	14,394	23,315	41,623	35,130	57,252
34 Acct 921-Office Supplies & Expenses	EXP921	32,234	52,211	93,212	78,669	128,210
35 Acct 922-Administrative Exp Transf-Cr	EXP922	(31,448)	(50,939)	(90,940)	(76,752)	(125,085)
36 Acct 923-Outside Services Employed	EXP923	192,548	294,948	518,298	448,926	762,111
37 Acct 924-Property Insurance	EXP924	0	0	0	0	0
38 Acct 925-Injuries & Damages	EXP925	23,940	38,776	69,226	58,426	95,219
39 Acct 926-Employees Pensions & Benef	EXP926	142,774	206,030	392,587	331,396	558,050
40 Acct 928-Regulatory Commission Exp	EXP928	5,697	9,228	16,474	13,904	22,660

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-29

	ALLOC	TOTAL COMPANY INPUT
1 Acct 759-Handling Expense	EXP759	Page 9, Line 17
2 Acct 775-Miscellaneous Production Exp	EXP775	Page 9, Line 20
3 Acct 777-Lease Expense	EXP777	Page 9, Line 21
4 LNG Gas Prod Labor Accts 781 to 782	LABLM	Pg 19, Ln 21 to 22
5 Acct 781-Maintenance of Struct & Improv	EXP781	Page 9, Line 24
6 Acct 782-Maintenance of Production Eq	EXP782	Page 9, Line 25
7 Total Intangible Plant	INTPLT	Page 2, Line 5
8 Total Production Plant	PRODPLT	Page 2, Line 20
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	Pg 20, Ln 2 to 9
10 Acct 851-Sys Control & Load Dispatch	EXP851	Page 11, Line 2
11 Acct 852-Communication System Exp	EXP852	Page 11, Line 3
12 Acct 857-Measuring & Regul Stat Exp	EXP857	Page 11, Line 4
13 Acct 874-Mains and Services Exp	EXP874	Page 11, Line 5
14 Acct 878-Meter & House Regulator Exp	EXP878	Page 11, Line 6
15 Acct 879-Customer Installations Exp	EXP879	Page 11, Line 7
16 Acct 880-Other Expenses	EXP880	Page 11, Line 8
17 Acct 881-Rents	EXP881	Page 11, Line 9
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	Pg 20, Ln 12 to 18
19 Acct 886-Maintenance of Struct & Improv	EXP886	Page 11, Line 12
20 Acct 887-Maintenance of Mains	EXP887	Page 11, Line 13
21 Acct 888-Maint of Compressor Station Eq	EXP888	Page 11, Line 14
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	Page 11, Line 15
23 Acct 892-Maintenance of Services	EXP892	Page 11, Line 16
24 Acct 893-Mint of Meters and House Regul	EXP893	Page 11, Line 17
25 Acct 894-Maintenance of Other Equip	EXP894	Page 11, Line 18
26 Customer Accts Labor Accts 902 to 903	LABCA	Pg 21, Ln 2 to 3
27 Acct 902-Meter Reading Expenses	EXP902	Page 12, Line 2
28 Acct 903-Cust Records & Collection Exp	EXP903	Page 12, Line 8
29 Sales Expenses Labor Accts 912 to 916	LABSA	Pg 21, Ln 6 to 8
30 Acct 912-Demonstrating & Selling Exp	EXP912	Page 12, Line 28
31 Acct 913-Advertising Exp	EXP913	Page 12, Line 32
32 Acct 916-Miscellaneous Sales Exp	EXP916	Page 12, Line 33
33 Acct 920-Administrative & General Sal	EXP920	Page 13, Line 1
34 Acct 921-Office Supplies & Expenses	EXP921	Page 13, Line 4
35 Acct 922-Administrative Exp Transf-Cr	EXP922	Page 13, Line 5
36 Acct 923-Outside Services Employed	EXP923	Page 13, Line 38
37 Acct 924-Property Insurance	EXP924	Page 13, Line 39
38 Acct 925-Injuries & Damages	EXP925	Page 13, Line 43
39 Acct 926-Employees Pensions & Benef	EXP926	Page 14, Line 4
40 Acct 928-Regulatory Commission Exp	EXP928	Page 14, Line 7

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-30

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 929-Duplicate Charges-Cr	EXP929	0	0	0	0	0	0	0
2 Acct 930-Miscellaneous General Exp	EXP930	863,314	493,314	53,404	55,485	62,984	62,984	40,392
3 Acct 931 Rentals	EXP931	3,496,560	2,074,355	277,418	261,352	314,475	314,475	131,475
4 Acct 932 Maintenance of General Plant	EXP932	846,177	497,593	49,285	57,588	72,620	72,620	44,101
5 Total LPG Gas Operating Labor	TLABPO	178,302	26,979	517	3,072	6,247	6,247	4,889
6 Tot LPG Gas Maintenance Labor	TLABPM	57,587	8,713	167	992	2,018	2,018	1,579
7 Total LNG Gas Operating Labor	TLABLO	994,820	150,527	2,886	17,141	34,857	34,857	27,275
8 Tot LNG Gas Maintenance Labor	TLABLM	116,542	17,634	338	2,008	4,083	4,083	3,195
9 Total Transm & Distr Operating Labor	TLABDO	10,606,968	6,125,365	549,382	743,527	1,102,434	1,102,434	663,975
10 Total Transm & Distr Maintenance Labor	TLABDM	4,229,868	2,511,595	194,237	283,994	389,190	389,190	289,611
11 Total Customer Accounts Labor	TLABCA	5,838,988	4,254,370	578,619	437,979	208,428	208,428	91,327
12 Total Sales Expense Labor	TLABSA	205,166	131,506	13,199	11,326	13,228	13,228	9,620
13 Total General Plant	GENPLT	33,883,089	19,924,907	1,973,502	2,305,982	2,907,893	2,907,893	1,765,928
14 Claimed Sales Revenues less Gas Costs	REVCLAIM	175,507,389	100,277,501	10,855,556	11,278,538	12,803,042	12,803,042	8,210,675
15 Sales Expense Accounts 912 to 913	EXP9123	358,013	214,839	15,945	20,423	30,674	30,674	23,193
16 Acct 367 Mains and Acct 380 Services	PLT36780	538,533,185	329,937,906	28,126,955	36,539,041	44,122,475	44,122,475	34,475,991
17 Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	83,726,431	51,038,035	7,860,479	6,017,331	8,017,331	8,017,331	2,354,739
18 Acct 380,381,382 & 383 - Serv,Met & Reg	PLT3803	312,472,794	217,080,792	32,845,145	24,674,433	14,187,200	14,187,200	7,133,295
19 Transm & Distr Oper Accts 851 to 879	EXP8519	15,871,085	9,165,078	791,170	1,102,812	1,640,899	1,640,899	1,019,966
20 Total Customer Deposits	TOTCDEP	3,090,784	37,964	1,551	1,006,862	935,120	935,120	247,259
21 Acct 386 Other Property on Cust's Prem	PLT386	22,458,288	11,881,733	227,803	1,352,989	2,751,410	2,751,410	2,152,944
22 Total Transmission & Distribution Plant	DISTRPLT	662,036,839	402,020,393	36,390,910	45,733,749	57,012,993	57,012,993	40,643,938
23 Acct 904-Uncollectible Accts-Gas Sales	EXP904S	8,489,829	1,866,206	594,698	284,753	63,445	63,445	10,880
24 Acct 904-Uncollectible Accts-Other Rev	EXP904O	412,767	218,377	4,187	24,867	50,569	50,569	39,570
25 Acct 367-Gas Mains - Bare Steel	PLT367BS	2,554,359	1,351,404	25,910	153,886	312,940	312,940	244,871
26 Acct 367-Gas Mains - Joint Clamping	PLT367JC	20,020,721	10,592,119	203,078	1,206,139	2,452,779	2,452,779	1,919,268
27 Acct 367-Gas Mains - Cast Iron	PLT367CI	5,690,941	3,010,837	57,725	342,848	697,209	697,209	545,557
28 Acct 367-Gas Mains - Cathodic Protect	PLT367CP	8,274,626	4,377,756	83,933	498,501	1,013,741	1,013,741	793,240
29 Acct 367-Gas Mains - Coated Steel	PLT367CS	146,116,729	77,304,202	1,482,119	8,802,732	17,901,054	17,901,054	14,007,349
30 Acct 367-Gas Mains - Plastic	PLT367P	126,075,826	66,701,405	1,278,837	7,595,377	15,445,803	15,445,803	12,086,146
31 Acct 391-Office Equipment	PLT391OE	5,917,985	3,468,170	325,004	395,502	502,402	502,402	321,689
32 Acct 391-Office IT Equipment	PLT391IT	5,502,374	3,224,605	302,179	367,727	467,119	467,119	299,097
33 Acct 397-Comm Equip MetScan	PLT397M	644,449	392,844	60,503	52,327	61,710	61,710	18,125
34 Acct 397-Comm Equip ERT/ITRON	PLT397E	2,248,171	1,370,442	211,065	182,545	215,277	215,277	63,228
35 Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	367,132	55,551	1,085	6,326	12,864	12,864	10,066
36 Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	1,768,764	267,633	5,131	30,476	61,975	61,975	48,494
37 Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	753,385	113,995	2,186	12,981	26,397	26,397	20,656
38 Total Gas Operation & Maintenance Labor	OMLAB	23,718,343	14,083,458	1,430,391	1,596,979	1,871,146	1,871,146	1,162,844
39 Inflation Adjustment Residual O&M	OTHOMINF	36,141,958	21,102,439	2,033,953	2,400,368	2,928,381	2,928,381	1,873,237

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 62 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-30

	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Acct 929-Duplicate Charges-Cr	EXP929	0	0	0	0	0
2 Acct 930-Miscellaneous General Exp	EXP930	7,119	11,531	20,586	17,374	28,316
3 Acct 931 Rents	EXP931	17,232	73,698	123,262	63,509	66,527
4 Acct 932 Maintenance of General Plant	EXP932	7,989	12,482	24,160	19,233	31,555
5 Total LPG Gas Operating Labor	TLABPO	1,024	434	1,749	2,036	4,047
6 Tot LPG Gas Maintenance Labor	TLABPM	331	140	565	657	1,307
7 Total LNG Gas Operating Labor	TLABLO	5,715	2,422	9,757	11,357	22,581
8 Tot LNG Gas Maintenance Labor	TLABLM	670	284	1,143	1,331	2,645
9 Total Transm & Distr Operating Labor	TLABDO	119,560	170,594	371,140	291,686	469,283
10 Total Transm & Distr Maintenance Labor	TLABDM	55,058	50,416	116,611	121,363	217,782
11 Total Customer Accounts Labor	TLABCA	14,900	86,673	71,028	38,587	59,075
12 Total Sales Expense Labor	TLABSA	2,020	2,288	5,124	5,453	11,402
13 Total General Plant	GENPLT	320,299	499,818	967,416	770,145	1,263,553
14 Claimed Sales Revenues less Gas Costs	REVCLAIM	1,447,096	2,343,956	4,184,599	3,531,742	5,755,813
15 Sales Expense Accounts 912 to 913	EXP9123	4,864	3,647	10,160	11,260	23,008
16 Acct 367 Mains and Acct 380 Services	PLT36780	6,425,813	6,203,261	12,933,537	14,288,172	25,478,826
17 Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	167,390	2,175,857	3,435,233	1,285,854	593,165
18 Acct 380, 381, 382 & 383 - Serv.Met & Reg	PLT3803	370,677	5,741,708	5,745,502	3,207,987	1,486,057
19 Transm & Distr Oper Accts 851 to 879	EXP8519	186,201	244,875	543,524	444,787	731,740
20 Total Customer Deposits	TOTCDEP	88,516	244,033	396,375	118,452	16,653
21 Acct 386 Other Property on Cust's Prem	PLT386	451,108	191,202	770,144	896,488	1,782,380
22 Total Transmission & Distribution Plant	DISTRPLT	7,392,187	8,717,767	17,732,818	17,161,850	29,228,872
23 Acct 904-Uncollectible Accts-Gas Sales	EXP904S	206	62,395	23,025	4,798	2,283
24 Acct 904-Uncollectible Accts-Other Rev	EXP904O	8,291	3,514	14,155	16,477	32,759
25 Acct 367-Gas Mains - Bare Steel	PLT367BS	51,308	21,747	87,595	101,965	202,724
26 Acct 367-Gas Mains - Joint Clamping	PLT367JC	402,146	170,449	686,554	799,185	1,588,925
27 Acct 367-Gas Mains - Cast Iron	PLT367CI	114,311	48,451	195,155	227,170	451,656
28 Acct 367-Gas Mains - Cathodic Protect	PLT367CP	166,208	70,447	283,755	330,306	656,708
29 Acct 367-Gas Mains - Coated Steel	PLT367CS	2,934,970	1,243,984	5,010,662	5,832,673	11,596,414
30 Acct 367-Gas Mains - Plastic	PLT367P	2,532,419	1,073,363	4,323,416	5,032,682	10,005,887
31 Acct 391-Office Equipment	PLT391OE	60,060	81,091	162,075	138,585	237,377
32 Acct 391-Office Equip	PLT391IT	55,842	75,396	150,693	128,852	220,706
33 Acct 397-Comm Equip MetScan	PLT397M	1,288	16,748	26,441	9,897	4,566
34 Acct 397-Comm Equip ERT/ITRON	PLT397E	4,495	58,425	92,241	34,527	15,927
35 Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	2,109	894	3,601	4,191	8,333
36 Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	10,161	4,307	17,347	20,193	40,148
37 Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	4,328	1,834	7,389	8,601	17,100
38 Total Gas Operation & Maintenance Labor	OMLAB	211,941	333,575	614,081	503,260	838,395
39 Inflation Adjustment Residual O&M	OTHOMINF	347,417	489,953	945,034	805,800	1,373,218

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-30

	ALLOC	TOTAL COMPANY INPUT
1 Acct 929-Duplicate Charges-Cr	EXP929	Page 14, Line 8
2 Acct 930-Miscellaneous General Exp	EXP930	Page 14, Line 12
3 Acct 931 Rentals	EXP931	Page 14, Line 18
4 Acct 932 Maintenance of General Plant	EXP932	Page 14, Line 22
5 Total LPG Gas Operating Labor	TLABPO	Page 19, Line 5
6 Tot LPG Gas Maintenance Labor	TLABPM	Page 19, Line 9
7 Total LNG Gas Operating Labor	TLABLO	Page 19, Line 17
8 Tot LNG Gas Maintenance Labor	TLABLM	Page 19, Line 21
9 Total Transm & Distr Operating Labor	TLABDO	Page 20, Line 10
10 Total Transm & Distr Maintenance Labor	TLABDM	Page 20, Line 19
11 Total Customer Accounts Labor	TLABCA	Page 21, Line 4
12 Total Sales Expense Labor	TLABSA	Page 21, Line 9
13 Total General Plant	GENPLT	Pg 4, Ln 3 & 17
14 Claimed Sales Revenues less Gas Costs	REV/CLAIM	See Allocator Descriptions
15 Sales Expense Accounts 912 to 913	EXP9123	Pg 12, Ln 28 & 32
16 Acct 367 Mains and Acct 380 Services	PLT36780	Pg 3, Ln 11 & 14
17 Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	Pg 3, Line 15, 16 & 17
18 Acct 380,381,382 & 383 - Serv Met & Reg	PLT3803	Pg 3, Line 14, 15, 16 & 17
19 Transm & Distr Oper Accts 851 to 879	EXP8519	Pg 11, Line 2 to 7
20 Total Customer Deposits	TOTCDEP	Page 7, Line 23
21 Acct 386 Other Property on Cust's Prem	PLT386	Page 3, Line 21
22 Total Transmission & Distribution Plant	DISTRPLT	Page 3, Line 23 & 25
23 Acct 904-Uncollectible Accts-Gas Sales	EXP904S	Pg 12, Line 9 to 19
24 Acct 904-Uncollectible Accts-Other Rev	EXP904O	Page 12, Line 22 & 23
25 Acct 367-Gas Mains - Bare Steel	PLT367BS	Page 3, Line 4
26 Acct 367-Gas Mains - Joint Clamping	PLT367JC	Page 3, Line 5
27 Acct 367-Gas Mains - Cast Iron	PLT367CI	Page 3, Line 6
28 Acct 367-Gas Mains - Cathodic Protect	PLT367CP	Page 3, Line 7
29 Acct 367-Gas Mains - Coated Steel	PLT367CS	Page 3, Line 8
30 Acct 367-Gas Mains - Plastic	PLT367P	Page 3, Line 9
31 Acct 391-Office Equipment	PLT391OE	Page 4, Line 4
32 Acct 391-Office IT Equipment	PLT391IT	Page 4, Line 5
33 Acct 397-Comm Equip MetScan	PLT397M	Page 4, Line 13
34 Acct 397-Comm Equip ERT/ITRON	PLT397E	Page 4, Line 14
35 Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	Page 2, Line 6 & 7
36 Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	Page 2, Line 10 & 11
37 Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	Page 2, Line 15 & 16
38 Total Gas Operation & Maintenance Labor	OMLAB	Page 22, Line 15
39 Inflation Adjustment Residual O&M	OTHOMINF	See Allocator Descriptions

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-31

	ALOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Total Gas Supply Expense	GASCOSTS	324,556,618	0	0	0	0	0	0
2 Acct 903-Cust Records & Coll Subtotal	EXP903T	6,522,561	4,707,105	630,563	3	503,043	247,767	112,478
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

NISource Service Charges Allocators

12 Basis 1 - 50% Gross Plant	BASIS1P	754,551,098	446,150,209	40,367,793	1,513	50,799,344	63,732,988	44,970,985
13 Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	73,838,274	39,224,617	4,403,315	111	4,570,452	5,199,541	3,214,579
14 Basis 10 - Number of Annual Customers	BASIS10	3,356,808	2,635,699	396,597	143	198,495	55,963	7,406
15 Basis 11 - Labor	BASIS11	28,074,804	16,452,928	1,541,812	53	1,876,254	2,383,384	1,526,086
16 Basis 2 - Gross Plant	BASIS2	754,551,098	446,150,209	40,367,793	1,513	50,799,344	63,732,988	44,970,985
17 Basis 20 - Total Direct Billed	BASIS20	4,524,370	2,601,335	262,471	9	292,281	347,806	229,137
18 Basis 7 - 50% Deprec Plant	BASIS7P	718,484,245	425,201,864	38,419,321	1,445	48,410,544	60,683,753	43,008,880
19 Basis 7 - 50% O&M less NIS 923	BASIS7OM	398,396,892	39,224,617	4,403,315	111	4,570,452	5,199,541	3,214,579
20 Basis 9 - Labor	BASIS9	28,074,804	16,452,928	1,541,812	53	1,876,254	2,383,384	1,526,086
21 Basis Co 12 - Oth NiSource Serv Chrgs	BASCO12	20,141,561	12,143,301	1,335,042	95	1,284,479	1,365,406	874,721
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 65 of 322

DELIVERY COMPONENTS		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
INTERNALLY DEVELOPED CONT-31							
1	Total Gas Supply Expense	GASCOSTS	0	0	0	0	0
2	Acct 903-Cust Records & Coil Subtotal	EXP903T	18,517	98,958	83,648	47,108	73,372
3							
4							
5							
6							
7							
8							
9							
10							
11	<u>NISource Service Charges Allocators</u>						
12	Basis 1 - 50% Gross Plant	BASIS1P	8,205,107	9,757,141	19,894,459	19,025,787	32,439,258
13	Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	584,855	958,731	1,701,121	1,387,862	2,307,503
14	Basis 10 - Number of Annual Customers	BASIS10	181	39,595	20,955	2,979	795
15	Basis 11 - Labor	BASIS11	284,926	384,694	768,883	657,443	1,126,110
16	Basis 2 - Gross Plant	BASIS2	8,205,107	9,757,141	19,894,459	19,025,787	32,439,258
17	Basis 20 - Total Direct Billed	BASIS20	41,894	58,766	111,149	97,955	166,323
18	Basis 7 - 50% Deprec Plant	BASIS7P	7,838,212	9,269,254	18,913,143	18,181,289	30,989,180
19	Basis 7 - 50% O&M less NIS 923	BASIS7OM	584,855	958,731	1,701,121	1,387,862	2,307,503
20	Basis 9 - Labor	BASIS9	284,926	384,694	768,883	657,443	1,126,110
21	Basis Co 12 - Oth NISource Serv Chrgs	BASCO12	158,012	258,565	439,935	373,778	626,273
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

TOTAL COMPANY
INPUT

ALLOC

INTERNALLY DEVELOPED CONT-31

GASCOSTS Page 10 , Line 7
EXP903T Pg 12 , Line 3 to 51 Total Gas Supply Expense
2 Acct 903-Cust Records & Coll SubtotalNISource Service Charges Allocators

11 Basis 1 - 50% Gross Plant
12 Basis 1 - 50% O&M less Gas & NIS 923
13 Basis 10 - Number of Annual Customers
14 Basis 11 - Labor
15 Basis 2 - Gross Plant
16 Basis 20 - Total Direct Billed
17 Basis 7 - 50% Deprec Plant
18 Basis 7 - 50% O&M less NIS 923
19 Basis 9 - Labor
20 Basis Co 12 - Oth NISource Serv Chrgs

BASIS1P Page 4 , Line 18
BASIS10M See Allocator Descriptions
BASIS10 Page 26 , Line 31
BASIS11 Page 22 , Line 21
BASIS2 Page 4 , Line 18
BASIS20 Page 13 , Line 28
BASIS7P See Allocator Descriptions
BASIS70M See Allocator Descriptions
BASIS9 Page 22 , Line 21
BASCO12 Page 13 , Ln 6 to 17 & 28

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

11:19 AM

30-Jun-05

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-32

REVENUES FROM GAS SALES		TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Revenues Firm Sales of Gas	478,651,282	323,429,755	10,830,018	2,726	31,946,429	46,870,369	22,321,850
2	Annual Base Revenues - Sales Actual	122,553,551	90,306,804	5,317,329	479	9,322,851	8,796,996	2,913,844
3	Annual Base Rev - Trans Actual	17,846,899	23,420	1,127	0	646,079	3,200,449	4,286,966
4	GAF Direct Revenues	307,478,651	211,649,336	5,037,827	2,066	20,118,078	31,776,012	13,793,415
5	Production & Storage Revenues	9,129,632	6,662,418	66,089	7	602,472	924,653	396,525
6	GAF Indirect Bad Debt Revenues	7,118,165	4,941,538	109,207	47	438,488	717,301	324,983
7	Weather Normalzn Adj Base Rev-Sales	(2,307,187)	(1,714,352)	0	0	(250,352)	(253,911)	(82,199)
8	Weather Normalzn Adj Base Rev-Trans	(248,396)	(504)	0	0	(19,193)	(94,414)	(127,701)
9	GAF Deferred Direct Gas Revenues	17,079,967	11,561,095	298,440	127	1,088,006	1,803,283	816,017
10	GAF Indirect Revenues	19,129,611	13,280,067	293,486	125	1,178,409	1,927,700	873,371

REVENUE REQUIREMENT INPUTS

1	Claimed Rate of Return	9.050%	9.050%	9.050%	9.050%	9.050%	9.050%	9.050%
2	Annual Booked Therm Sales	365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
3	Annual Booked Therm Throughput	493,498,312	247,783,289	6,396,166	2,728	25,211,236	54,160,592	44,135,406
4	Proposed Sales Revenues	160,688,861	100,277,501	10,855,556	343	11,278,538	12,803,042	8,210,675
5	Total Annual Bills	3,395,936	2,666,494	400,515	144	200,206	56,195	7,432

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 68 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-32

	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
REVENUES FROM GAS SALES						
1 Revenues Firm Sales of Gas		4,903,279	5,775,878	15,241,815	9,011,447	8,317,714
2 Annual Base Revenues - Sales Actual		488,932	1,654,681	2,437,223	913,027	401,385
3 Annual Base Rev - Trans Actual		664,767	254,714	1,207,966	2,393,361	5,168,050
4 GAF Direct Revenues		3,381,173	3,503,816	10,545,356	5,181,132	2,490,440
5 Production & Storage Revenues		92,312	71,008	168,782	91,183	54,183
6 GAF Indirect Bad Debt Revenues		82,200	84,141	242,185	121,626	56,450
7 Weather Normalizin Adj Base Rev-Sales		(6,373)	0	0	0	0
8 Weather Normalizin Adj Base Rev-Trans		(6,584)	0	0	0	0
9 GAF Deferred Direct Gas Revenues		206,853	207,518	640,304	311,118	147,207
10 GAF Indirect Revenues		220,906	226,123	650,856	326,863	151,705

REVENUE REQUIREMENT INPUTS

1 Claimed Rate of Return	9.050%	9.050%	9.050%	9.050%	9.050%	9.050%
2 Annual Booked Therm Sales	4,431,946	4,446,204	13,718,907	6,665,891	3,153,997	3,153,997
3 Annual Booked Therm Throughput	9,488,031	5,243,986	21,369,383	25,505,268	54,222,227	54,222,227
4 Proposed Sales Revenues	1,447,096	2,343,956	4,184,599	3,631,742	5,755,813	5,755,813
5 Total Annual Bills	181	39,908	21,073	2,989	799	799

DELIVERY COMPONENTS

RATIO TABLE-33

CAPACITY RELATED

[illegible]

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE-33

CAPACITY RELATED

1 PRODUCTION ALLOCATORS
2 Design Day Remaining Demands - Sales
3 LPG Production Allocator - Prod Function
4 LNG Production Allocator - Prod Function
5 LPG & LNG Prod Alloc - Distr Function
6 LPG & LNG Distr Pressure Support %
7

8
9 PROD-PRESSURE SUPP ALLOC
10 LPG Prod & Pressure Support Alloc
11 LNG Prod & Pressure Support Alloc
12

13 GAS COST ALLOCATORS
14 Base Demand Gas Costs
15 Remaining Demand Gas Costs
16
17
18

DISTRIBUTION ALLOCATORS

1 Distribution Allocator
2
3 Pension & PBOP Expense Allocator
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
	0.01174 0.00000 0.00000 0.02009	0.00420 0.00000 0.00000 0.00851	0.01186 0.00000 0.00000 0.03429	0.00349 0.00000 0.00000 0.03992	0.00443 0.00000 0.00000 0.07936
DEMLPG DEMLNG	0.00574 0.00574	0.00243 0.00243	0.00981 0.00981	0.01142 0.01142	0.02270 0.02270
DBASE DREMAIN	0.00000 0.00000	0.00000 0.00000	0.00000 0.00000	0.00000 0.00000	0.00000 0.00000
DISTR	0.02009	0.00851	0.03429	0.03992	0.07936
PENSION	0.00866	0.01434	0.02483	0.02038	0.03300

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE CONT-34

COMMODITY RELATED

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Base Commodity Gas Costs		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2 Remaining Commodity Gas Costs		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3								
4								
5								
6								
7 Annual Therm Firm Sales Sendout		1.00000	0.67688	0.01747	0.00001	0.06370	0.10558	0.04778
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 72 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE CONT-34

COMMODITY RELATED

- 1 Base Commodity Gas Costs
2 Remaining Commodity Gas Costs
3
4
5
6
7 Annual Therm Firm Sales Sendout
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35

ALLOC

HIGH WINTER
LRG HI ANNUAL
G-43 & T-43

LOW WINTER
LOW ANNUAL
G-50 & T-50

LOW WINTER
MED ANNUAL
G-51 & T-51

LOW WINTER
HIGH ANNUAL
G-52 & T-52

LOW WINTER
LRG HI ANNUAL
G-53 & T-53

EBASE
EREMAIN
0.00000
0.00000

0.00000
0.00000

0.00000
0.00000

0.00000
0.00000

0.01211

0.01215

0.03749

0.01822

0.00862

DELIVERY COMPONENTS

RATIO TABLE CONT-35

CUSTOMER RELATED

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 380 Gas Services	CUST380	1.00000	0.72588	0.10922	0.00000	0.07815	0.02697	0.02089
2 Acct 381 Gas Meters	CUST381	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
3 Acct 382 Meter Installations	CUST382	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
4 Acct 383 Gas Regulators	CUST383	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
5 Customer Deposits	CUSTDEP	1.00000	0.01269	0.00007	0.00000	0.36215	0.29593	0.06925
6 Transportation Customers	CUSTTR	1.00000	0.01131	0.00152	0.00000	0.23929	0.31829	0.10555
7 Acct 386.0 Gas Water Heaters	CUST3860	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
8 Acct 386.2 Cascade Diamond Boilers	CUST3862	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
9 Acct 386.3 Conversion Burners	CUST3863	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
10 Acct 487-Return Check Charges	CUST487	1.00000	0.73673	0.04420	0.00000	0.07546	0.07106	0.02354
11 Acct 488-Rental Rev-W/H & Conv Burn	CUST488	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
12 Acct 882-Revenue Guardian Care & C/S	CUST882	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
13 Acct 902 Meter Reading Expense	CUST902	1.00000	0.77718	0.11664	0.00000	0.06001	0.01662	0.00437
14 Acct 903-Cust Records & Collection Exp	CUST903	1.00000	0.79072	0.11178	0.00000	0.05937	0.01666	0.00220
15 Acct 912-Demonstrating & Selling Exp	CUST912	1.00000	0.64342	0.06552	0.00000	0.05509	0.06321	0.04582
16 Acct 913-Advertising Expense	CUST913	1.00000	0.64342	0.06552	0.00000	0.05509	0.06321	0.04582
17 Acct 879-Customer Installations Exp	CUST879	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
18 Acct 903 Collections Expense	CUST903C	1.00000	0.71506	0.10360	0.00000	0.09763	0.03360	0.00903

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE CONT-35

CUSTOMER RELATED

		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Acct 380 Gas Services	CUST380	0.00089	0.01559	0.01010	0.00840	0.00390
2	Acct 381 Gas Meters	CUST381	0.00200	0.02599	0.04103	0.01536	0.00708
3	Acct 382 Meter Installations	CUST382	0.00200	0.02599	0.04103	0.01536	0.00708
4	Acct 383 Gas Regulators	CUST383	0.00200	0.02599	0.04103	0.01536	0.00708
5	Customer Deposits	CUSTDEP	0.03847	0.06822	0.11925	0.03397	0.00000
6	Transportation Customers	CUSTTR	0.00309	0.10447	0.14961	0.04868	0.01819
7	Acct 386.0 Gas Water Heaters	CUST3860	0.02009	0.00851	0.03429	0.03992	0.07936
8	Acct 386.2 Cascade Diamond Boilers	CUST3862	0.02009	0.00851	0.03429	0.03992	0.07936
9	Acct 386.3 Conversion Burners	CUST3863	0.02009	0.00851	0.03429	0.03992	0.07936
10	Acct 487-Return Check Charges	CUST487	0.00400	0.01377	0.02026	0.00761	0.00335
11	Acct 488-Rental Rev-W/H & Conv Burn	CUST488	0.02009	0.00851	0.03429	0.03992	0.07936
12	Acct 882-Revenue Guardian Care & C/S	CUST882	0.02009	0.00851	0.03429	0.03992	0.07936
13	Acct 902 Meter Reading Expense	CUST902	0.00054	0.01256	0.00755	0.00234	0.00219
14	Acct 903-Cust Records & Collection Exp	CUST903	0.00005	0.01183	0.00625	0.00089	0.00024
15	Acct 912-Demonstrating & Selling Exp	CUST912	0.00962	0.01121	0.02477	0.02628	0.05506
16	Acct 913-Advertising Expense	CUST913	0.00962	0.01121	0.02477	0.02628	0.05506
17	Acct 879-Customer Installations Exp	CUST879	0.02009	0.00851	0.03429	0.03992	0.07936
18	Acct 903 Collections Expense	CUST903C	0.00124	0.01927	0.01191	0.00371	0.00495
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE CONT-36

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Residential Heating Rate R-3 & R-4	C904R3	0.30260	0.30260	0.00000	0.00000	0.00000	0.00000	0.00000
2 Residential Non-Heating Rate R-1 & R-2	C904R1	0.64085	0.00000	0.64085	0.00000	0.00000	0.00000	0.00000
3 Outdoor Lighting	C904OL	0.12741	0.00000	0.00000	0.12741	0.00000	0.00000	0.00000
4 High Winter Low Annual Rate G40 & T40	C904R40	0.33571	0.00000	0.00000	0.00000	0.33571	0.00000	0.00000
5 High Winter Med Annual Rate G41 & T41	C904R41	0.26530	0.00000	0.00000	0.00000	0.00000	0.26530	0.00000
6 High Winter High Annual Rate G42 & T42	C904R42	0.34378	0.00000	0.00000	0.00000	0.00000	0.00000	0.34378
7 High Wint Large Annual Rate G43 & T43	C904R43	0.26615	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8 Low Winter Low Annual Rate G50 & T50	C904R50	0.36876	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9 Low Winter Med Annual Rate G51 & T51	C904T51	0.25713	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10 Low Winter High Annual Rate G52 & T52	C904R52	0.37692	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11 Low Wint Large Annual Rate G53 & T53	C904R53	0.67205	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
12								
13 LATE PAYMENT CHARGES								
14								
15 High Winter Low Annual Rate G40 & T40	C487R40	0.33571	0.00000	0.00000	0.00000	0.33571	0.00000	0.00000
16 High Winter Med Annual Rate G41 & T41	C487R41	0.26530	0.00000	0.00000	0.00000	0.00000	0.26530	0.00000
17 High Winter High Annual Rate G42 & T42	C487R42	0.34378	0.00000	0.00000	0.00000	0.00000	0.00000	0.34378
18 High Wint Large Annual Rate G43 & T43	C487R43	0.26615	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19 Low Winter Low Annual Rate G50 & T50	C487R50	0.36876	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20 Low Winter Med Annual Rate G51 & T51	C487T51	0.25713	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21 Low Winter High Annual Rate G52 & T52	C487R52	0.37692	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22 Low Wint Large Annual Rate G53 & T53	C487R53	0.67205	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 76 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE CONT-36

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Residential Heating Rate R-3 & R-4	0.00000	0.00000	0.00000	0.00000	0.00000
2 Residential Non-Heating Rate R-1 & R-2	0.00000	0.00000	0.00000	0.00000	0.00000
3 Outdoor Lighting	0.00000	0.00000	0.00000	0.00000	0.00000
4 High Winter Low Annual Rate G40 & T40	0.00000	0.00000	0.00000	0.00000	0.00000
5 High Winter Med Annual Rate G41 & T41	0.00000	0.00000	0.00000	0.00000	0.00000
6 High Winter High Annual Rate G42 & T42	0.00000	0.00000	0.00000	0.00000	0.00000
7 High Wint Large Annual Rate G43 & T43	0.26615	0.00000	0.00000	0.00000	0.00000
8 Low Winter Low Annual Rate G50 & T50	0.00000	0.36876	0.00000	0.00000	0.00000
9 Low Winter Med Annual Rate G51 & T51	0.00000	0.00000	0.25713	0.00000	0.00000
10 Low Winter High Annual Rate G52 & T52	0.00000	0.00000	0.00000	0.37692	0.00000
11 Low Wint Large Annual Rate G53 & T53	0.00000	0.00000	0.00000	0.00000	0.67205
12					
13					
14					
15 High Winter Low Annual Rate G40 & T40	0.00000	0.00000	0.00000	0.00000	0.00000
16 High Winter Med Annual Rate G41 & T41	0.00000	0.00000	0.00000	0.00000	0.00000
17 High Winter High Annual Rate G42 & T42	0.00000	0.00000	0.00000	0.00000	0.00000
18 High Wint Large Annual Rate G43 & T43	0.26615	0.00000	0.00000	0.00000	0.00000
19 Low Winter Low Annual Rate G50 & T50	0.00000	0.36876	0.00000	0.00000	0.00000
20 Low Winter Med Annual Rate G51 & T51	0.00000	0.00000	0.25713	0.00000	0.00000
21 Low Winter High Annual Rate G52 & T52	0.00000	0.00000	0.00000	0.37692	0.00000
22 Low Wint Large Annual Rate G53 & T53	0.00000	0.00000	0.00000	0.00000	0.67205
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					

LATE PAYMENT CHARGES

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

RATIO TABLE CONT-36		ALLOC	TOTAL COMPANY INPUT
INTERNALLY DEVELOPED			
UNCOLLECTIBLE ACCOUNTS			
1	Residential Heating Rate R-3 & R-4	C904R3	Page 23, Line 10, Col 2
2	Residential Non-Heating Rate R-1 & R-2	C904R1	Page 23, Line 10, Col 3
3	Outdoor Lighting	C904OL	Page 23, Line 10, Col 4
4	High Winter Low Annual Rate G40 & T40	C904R40	Page 23, Line 10, Col 5
5	High Winter Med Annual Rate G41 & T41	C904R41	Page 23, Line 10, Col 6
6	High Winter High Annual Rate G42 & T42	C904R42	Page 23, Line 10, Col 7
7	High Wint Large Annual Rate G43 & T43	C904R43	Page 23, Line 10, Col 8
8	Low Winter Low Annual Rate G50 & T50	C904R50	Page 23, Line 10, Col 9
9	Low Winter Med Annual Rate G51 & T51	C904T51	Page 23, Line 10, Col 10
10	Low Winter High Annual Rate G52 & T52	C904R52	Page 23, Line 10, Col 11
11	Low Wint Large Annual Rate G53 & T53	C904R53	Page 23, Line 10, Col 12
12			
13	LATE PAYMENT CHARGES		
14			
15	High Winter Low Annual Rate G40 & T40	C487R40	Page 23, Line 10, Col 5
16	High Winter Med Annual Rate G41 & T41	C487R41	Page 23, Line 10, Col 6
17	High Winter High Annual Rate G42 & T42	C487R42	Page 23, Line 10, Col 7
18	High Wint Large Annual Rate G43 & T43	C487R43	Page 23, Line 10, Col 8
19	Low Winter Low Annual Rate G50 & T50	C487R50	Page 23, Line 10, Col 9
20	Low Winter Med Annual Rate G51 & T51	C487T51	Page 23, Line 10, Col 10
21	Low Winter High Annual Rate G52 & T52	C487R52	Page 23, Line 10, Col 11
22	Low Wint Large Annual Rate G53 & T53	C487R53	Page 23, Line 10, Col 12
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED-37

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Total Gas Plant In Service	PLANT	0.97455	0.59128	0.05350	0.00000	0.06732	0.08446	0.05960
2 Sum of Allocated Labor Expense	LABOR	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
3 Acct 301 Organization	PLT301	0.97455	0.59128	0.05350	0.00000	0.06732	0.08446	0.05960
4 Acct 303 Misc. Intangible Plant	PLT303	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
5 Acct 305 Structures & Improvements	PLT305	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
6 Acct 311 L.P. Gas Equipment	PLT311	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
7 Acct 320 Other Equipment	PLT320	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
8 Acct 321 L.N.G. Equipment	PLT321	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
9 Acct 365 Right of Way	PLT365	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
10 Acct 366 Structures & Improvements	PLT366	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
11 Acct 367 Gas Mains	PLT367	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
12 Acct 368 Compressor Station Equipment	PLT368	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
13 Acct 369 Meas. & Reg. Station Equip	PLT369	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
14 Acct 380 Gas Services	PLT380	1.00000	0.72588	0.10922	0.00000	0.07815	0.02697	0.02089
15 Acct 381 Gas Meters	PLT381	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
16 Acct 382 Meter Installations	PLT382	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
17 Acct 383 Gas Regulators	PLT383	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
18 Acct 386 Gas Water Heaters	PLT3860	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
19 Acct 386 Cascade Diamond Boilers	PLT3862	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
20 Acct 386 Conversion Burners	PLT3863	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
21 Acct 387 Other Equipment	PLT387	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
22 Acct 379 Other Equipment	PLT379	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
23 Acct 390 Structures & Improvements	PLT390	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
24 Acct 391 Office Equipment	PLT391	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
25 Acct 392 Transportation Equipment	PLT392	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
26 Acct 393 Stores Equipment	PLT393	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
27 Acct 394 Tools, Shop & Garage Equip	PLT394	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
28 Acct 396 Power Operated Equipment	PLT396	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
29 Acct 397 Communication Equip-Other	PLT3970	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
30 Acct 398 Miscellaneous Equipment	PLT398	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
31 LPG Gas Prod Labor Accts 717 to 735	LABPO	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
32 Acct 717-LPG Gas Expenses	EXP717	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
33 Acct 719-Handling Expense	EXP719	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
34 Acct 735-Miscellaneous Production Exp	EXP735	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
35 LPG Gas Prod Labor Accts 741 to 742	LABPM	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
36 Acct 741-Maintenance of Struct & Improv	EXP741	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
37 Acct 742-Maintenance of Production Eq	EXP742	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
38 LNG Gas Prod Labor Accts 754 to 777	LABLO	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
39 Acct 754-Liquefaction Expense	EXP754	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
40 Acct 757-Vaporization Expense	EXP757	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 79 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED-37

	ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Total Gas Plant In Service	PLANT	0.01087	0.01293	0.02637	0.02521	0.04299
2 Sum of Allocated Labor Expense	LABOR	0.01015	0.01370	0.02739	0.02342	0.04011
3 Acct 301 Organization	PLT301	0.01087	0.01293	0.02637	0.02521	0.04299
4 Acct 303 Misc. Intangible Plant	PLT303	0.01015	0.01370	0.02739	0.02342	0.04011
5 Acct 305 Structures & Improvements	PLT305	0.00574	0.00243	0.00981	0.01142	0.02270
6 Acct 311 L.P. Gas Equipment	PLT311	0.00574	0.00243	0.00981	0.01142	0.02270
7 Acct 320 Other Equipment	PLT320	0.00574	0.00243	0.00981	0.01142	0.02270
8 Acct 321 L.N.G. Equipment	PLT321	0.00574	0.00243	0.00981	0.01142	0.02270
9 Acct 365 Right of Way	PLT365	0.02009	0.00851	0.03429	0.03992	0.07936
10 Acct 366 Structures & Improvements	PLT366	0.02009	0.00851	0.03429	0.03992	0.07936
11 Acct 367 Gas Mains	PLT367	0.02009	0.00851	0.03429	0.03992	0.07936
12 Acct 368 Compressor Station Equipment	PLT368	0.02009	0.00851	0.03429	0.03992	0.07936
13 Acct 369 Meas. & Reg. Station Equip	PLT369	0.02009	0.00851	0.03429	0.03992	0.07936
14 Acct 380 Gas Services	PLT380	0.00089	0.01559	0.01010	0.00840	0.00390
15 Acct 381 Gas Meters	PLT381	0.00200	0.02599	0.04103	0.01536	0.00708
16 Acct 382 Meter Installations	PLT382	0.00200	0.02599	0.04103	0.01536	0.00708
17 Acct 383 Gas Regulators	PLT383	0.02009	0.00851	0.03429	0.03992	0.07936
18 Acct 386 Gas Water Heaters	PLT386	0.02009	0.00851	0.03429	0.03992	0.07936
19 Acct 386 Cascade Diamond Boilers	PLT386	0.02009	0.00851	0.03429	0.03992	0.07936
20 Acct 386 Conversion Burners	PLT386	0.02009	0.00851	0.03429	0.03992	0.07936
21 Acct 387 Other Equipment	PLT387	0.02009	0.00851	0.03429	0.03992	0.07936
22 Acct 379 Other Equipment	PLT379	0.01015	0.01370	0.02739	0.02342	0.04011
23 Acct 390 Structures & Improvements	PLT390	0.01015	0.01370	0.02739	0.02342	0.04011
24 Acct 391 Office Equipment	PLT391	0.01015	0.01370	0.02739	0.02342	0.04011
25 Acct 392 Transportation Equipment	PLT392	0.01015	0.01370	0.02739	0.02342	0.04011
26 Acct 393 Stores Equipment	PLT393	0.01015	0.01370	0.02739	0.02342	0.04011
27 Acct 394 Tools, Shop & Garage Equip	PLT394	0.01015	0.01370	0.02739	0.02342	0.04011
28 Acct 396 Power Operated Equipment	PLT396	0.01015	0.01370	0.02739	0.02342	0.04011
29 Acct 397 Communication Equip-Other	PLT397	0.01015	0.01370	0.02739	0.02342	0.04011
30 Acct 398 Miscellaneous Equipment	PLT398	0.01015	0.01370	0.02739	0.02342	0.04011
31 LPG Gas Prod Labor Accts 717 to 735	LABPO	0.00574	0.00243	0.00981	0.01142	0.02270
32 Acct 717-LPG Gas Expenses	EXP717	0.00574	0.00243	0.00981	0.01142	0.02270
33 Acct 719-Handling Expense	EXP719	0.00574	0.00243	0.00981	0.01142	0.02270
34 Acct 735-Miscellaneous Production Exp	EXP735	0.00574	0.00243	0.00981	0.01142	0.02270
35 LPG Gas Prod Labor Accts 741 to 742	LABPM	0.00574	0.00243	0.00981	0.01142	0.02270
36 Acct 741-Maintenance of Struct & Improv	EXP741	0.00574	0.00243	0.00981	0.01142	0.02270
37 Acct 742-Maintenance of Production Eq	EXP742	0.00574	0.00243	0.00981	0.01142	0.02270
38 LNG Gas Prod Labor Accts 754 to 777	LABLO	0.00574	0.00243	0.00981	0.01142	0.02270
39 Acct 754-Liquefaction Expense	EXP754	0.00574	0.00243	0.00981	0.01142	0.02270
40 Acct 757-Vaporization Expense	EXP757	0.00574	0.00243	0.00981	0.01142	0.02270

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

TOTAL COMPANY
INPUT

INTERNALLY DEVELOPED-37

ALLOC

1	Total Gas Plant In Service	PLANT	Page 4, Line 18
2	Sum of Allocated Labor Expense	LABOR	Page 22, Line 21
3	Acct 301 Organization	PLT301	Page 2, Line 3
4	Acct 303 Misc. Intangible Plant	PLT303	Page 2, Line 4
5	Acct 305 Structures & Improvements	PLT305	Page 2, Line 13
6	Acct 311 L.P. Gas Equipment	PLT311	Page 2, Line 14
7	Acct 320 Other Equipment	PLT320	Page 2, Line 18
8	Acct 321 L.N.G. Equipment	PLT321	Page 2, Line 19
9	Acct 365 Right of Way	PLT365	Page 3, Line 2
10	Acct 366 Structures & Improvements	PLT366	Page 3, Line 3
11	Acct 367 Gas Mains	PLT367	Page 3, Line 11
12	Acct 368 Compressor Station Equipment	PLT368	Page 3, Line 12
13	Acct 369 Meas. & Reg. Station Equip	PLT369	Page 3, Line 13
14	Acct 380 Gas Services	PLT380	Page 3, Line 14
15	Acct 381 Gas Meters	PLT381	Page 3, Line 15
16	Acct 382 Meter Installations	PLT382	Page 3, Line 16
17	Acct 383 Gas Regulators	PLT383	Page 3, Line 17
18	Acct 386 Gas Water Heaters	PLT3860	Page 3, Line 18
19	Acct 386 Cascade Diamond Boilers	PLT3862	Page 3, Line 19
20	Acct 386 Conversion Burners	PLT3863	Page 3, Line 20
21	Acct 387 Other Equipment	PLT387	Page 3, Line 22
22	Acct 379 Other Equipment	PLT379	Page 3, Line 24
23	Acct 390 Structures & Improvements	PLT390	Page 4, Line 2
24	Acct 391 Office Equipment	PLT391	Page 4, Line 6
25	Acct 392 Transportation Equipment	PLT392	Page 4, Line 7
26	Acct 393 Stores Equipment	PLT393	Page 4, Line 8
27	Acct 394 Tools, Shop & Garage Equip	PLT394	Page 4, Line 9
28	Acct 396 Power Operated Equipment	PLT396	Page 4, Line 10
29	Acct 397 Communication Equip-Other	PLT3970	Page 4, Line 11 & 12
30	Acct 398 Miscellaneous Equipment	PLT398	Page 4, Line 16
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	Pg 19, Ln 2 to 4
32	Acct 717-LPG Gas Expenses	EXP717	Page 9, Line 2
33	Acct 719-Handling Expense	EXP719	Page 9, Line 3
34	Acct 735-Miscellaneous Production Exp	EXP735	Page 9, Line 6
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	Pg 19, Ln 9 to 10
36	Acct 741-Maintenance of Struct & Improv	EXP741	Page 9, Line 9
37	Acct 742-Maintenance of Production Eq	EXP742	Page 9, Line 10
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	Pg 19, Ln 14 to 18
39	Acct 754-Liquefaction Expense	EXP754	Page 9, Line 14
40	Acct 757-Vaporization Expense	EXP757	Page 9, Line 15

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Attachment AG-22-44

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-38

	ALOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 759-Handling Expense	EXP759	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
2 Acct 775-Miscellaneous Production Exp	EXP775	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
3 Acct 777-Lease Expense	EXP777	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
4 LNG Gas Prod Labor Accts 781 to 782	LABLM	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
5 Acct 781-Maintenance of Struct & Improv	EXP781	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
6 Acct 782-Maintenance of Production Eq	EXP782	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
7 Total Intangible Plant	INTPLT	0.96206	0.58614	0.05489	0.00000	0.06684	0.08489	0.05446
8 Total Production Plant	PRODPLT	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	1.00000	0.57749	0.05179	0.00000	0.07010	0.10393	0.06260
10 Acct 851-Sys Control & Load Dispatch	EXP851	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11 Acct 852-Communication System Exp	EXP852	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
12 Acct 857-Measuring & Regul Stat Exp	EXP857	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
13 Acct 874-Mains and Services Exp	EXP874	1.00000	0.61266	0.05223	0.00000	0.06785	0.08193	0.06402
14 Acct 878-Meter & House Regulator Exp	EXP878	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
15 Acct 879-Customer Installations Exp	EXP879	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
16 Acct 880-Other Expenses	EXP880	1.00000	0.57747	0.04985	0.00000	0.06949	0.10339	0.06427
17 Acct 881-Rents	EXP881	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	1.00000	0.59378	0.04592	0.00000	0.06714	0.09201	0.06847
19 Acct 886-Maintenance of Struct & Improv	EXP886	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
20 Acct 887-Maintenance of Mains	EXP887	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
21 Acct 888-Maint of Compressor Station Eq	EXP888	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
23 Acct 892-Maintenance of Services	EXP892	1.00000	0.72588	0.10922	0.00000	0.07815	0.02697	0.02089
24 Acct 893-Mnt of Meters and House Regul	EXP893	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
25 Acct 894-Maintenance of Other Equip	EXP894	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
26 Customer Accts Labor Accts 902 to 903	LABCA	1.00000	0.72861	0.09910	0.00000	0.07501	0.03535	0.01564
27 Acct 902-Meter Reading Expenses	EXP902	1.00000	0.77718	0.11664	0.00000	0.06001	0.01662	0.00437
28 Acct 903-Cust Records & Collection Exp	EXP903	1.00000	0.72229	0.09681	0.00000	0.07696	0.03779	0.01711
29 Sales Expenses Labor Accts 912 to 916	LABSA	1.00000	0.64097	0.06434	0.00000	0.05520	0.06448	0.04689
30 Acct 912-Demonstrating & Selling Exp	EXP912	1.00000	0.64342	0.06552	0.00000	0.05509	0.06321	0.04582
31 Acct 913-Advertising Exp	EXP913	1.00000	0.56521	0.02765	0.00000	0.05862	0.10376	0.08004
32 Acct 916-Miscellaneous Sales Exp	EXP916	1.00000	0.60009	0.04454	0.00000	0.05705	0.08568	0.06478
33 Acct 920-Administrative & General Sal	EXP920	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678
34 Acct 921-Office Supplies & Expenses	EXP921	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678
35 Acct 922-Administrative Exp Transf-Cr	EXP922	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678
36 Acct 923-Outside Services Employed	EXP923	0.88369	0.56511	0.06040	0.00000	0.05998	0.06574	0.04266
37 Acct 924-Property Insurance	EXP924	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
38 Acct 925-Injuries & Damages	EXP925	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678
39 Acct 926-Employees Pensions & Benef	EXP926	0.97478	0.60287	0.05835	0.00000	0.06834	0.08265	0.05241
40 Acct 928-Regulatory Commission Exp	EXP928	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 82 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-38

	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Acct 759-Handling Expense	EXP759	0.00574	0.00243	0.00981	0.01142	0.02270
2 Acct 775-Miscellaneous Production Exp	EXP775	0.00574	0.00243	0.00981	0.01142	0.02270
3 Acct 777-Lease Expense	EXP777	0.00574	0.00243	0.00981	0.01142	0.02270
4 LNG Gas Prod Labor Accts 781 to 782	LABLM	0.00574	0.00243	0.00981	0.01142	0.02270
5 Acct 781-Maintenance of Struct & Improv	EXP781	0.00574	0.00243	0.00981	0.01142	0.02270
6 Acct 782-Maintenance of Production Eq	EXP782	0.00574	0.00243	0.00981	0.01142	0.02270
7 Total Intangible Plant	INTPLT	0.01016	0.01369	0.02737	0.02345	0.04017
8 Total Production Plant	PRODPLT	0.00574	0.00243	0.00981	0.01142	0.02270
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	0.01127	0.01608	0.03499	0.02750	0.04424
10 Acct 851-Sys Control & Load Dispatch	EXP851	0.00000	0.00000	0.00000	0.00000	0.00000
11 Acct 852-Communication System Exp	EXP852	0.02009	0.00851	0.03429	0.03992	0.07936
12 Acct 857-Measuring & Regul Stat Exp	EXP857	0.02009	0.00851	0.03429	0.03992	0.07936
13 Acct 874-Mains and Services Exp	EXP874	0.01193	0.01152	0.02402	0.02653	0.04731
14 Acct 878-Meter & House Regulator Exp	EXP878	0.00200	0.02599	0.04103	0.01536	0.00708
15 Acct 879-Customer Installations Exp	EXP879	0.02009	0.00851	0.03429	0.03992	0.07936
16 Acct 880-Other Expenses	EXP880	0.01173	0.01543	0.03425	0.02802	0.04611
17 Acct 881-Rents	EXP881	0.02009	0.00851	0.03429	0.03992	0.07936
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	0.01302	0.01192	0.02757	0.02869	0.05149
19 Acct 886-Maintenance of Struct & Improv	EXP886	0.02009	0.00851	0.03429	0.03992	0.07936
20 Acct 887-Maintenance of Mains	EXP887	0.02009	0.00851	0.03429	0.03992	0.07936
21 Acct 888-Maint of Compressor Station Eq	EXP888	0.00000	0.00000	0.00000	0.00000	0.00000
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	0.02009	0.00851	0.03429	0.03992	0.07936
23 Acct 892-Maintenance of Services	EXP892	0.00089	0.01559	0.01010	0.00840	0.00390
24 Acct 893-Mnt of Meters and House Regul	EXP893	0.00200	0.02599	0.04103	0.01536	0.00708
25 Acct 894-Maintenance of Other Equip	EXP894	0.02009	0.00851	0.03429	0.03992	0.07936
26 Customer Accts Labor Accts 902 to 903	LABCA	0.00255	0.01484	0.01216	0.00661	0.01012
27 Acct 902-Meter Reading Expenses	EXP902	0.01256	0.01256	0.00755	0.00234	0.00219
28 Acct 903-Cust Records & Collection Exp	EXP903	0.00281	0.01514	0.01276	0.00716	0.01115
29 Sales Expenses Labor Accts 912 to 916	LABSA	0.00984	0.01115	0.02497	0.02658	0.05558
30 Acct 912-Demonstrating & Selling Exp	EXP912	0.00962	0.01121	0.02477	0.02628	0.05506
31 Acct 913-Advertising Exp	EXP913	0.01678	0.00937	0.03128	0.03561	0.07168
32 Acct 916-Miscellaneous Sales Exp	EXP916	0.01359	0.01019	0.02838	0.03145	0.06427
33 Acct 920-Administrative & General Sal	EXP920	0.00825	0.01336	0.02384	0.02012	0.03280
34 Acct 921-Office Supplies & Expenses	EXP921	0.00825	0.01336	0.02384	0.02012	0.03280
35 Acct 922-Administrative Exp Transf-Cr	EXP922	0.00825	0.01336	0.02384	0.02012	0.03280
36 Acct 923-Outside Services Employed	EXP923	0.00780	0.01195	0.02099	0.01818	0.03087
37 Acct 924-Property Insurance	EXP924	0.00000	0.00000	0.00000	0.00000	0.00000
38 Acct 925-Injuries & Damages	EXP925	0.00825	0.01336	0.02384	0.02012	0.03280
39 Acct 926-Employees Pensions & Benef	EXP926	0.00964	0.01392	0.02652	0.02239	0.03770
40 Acct 928-Regulatory Commission Exp	EXP928	0.00825	0.01336	0.02384	0.02012	0.03280

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 83 of 322

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-38

	ALLOC	TOTAL COMPANY INPUT
1 Acct 759-Handling Expense	EXP759	Page 9, Line 17
2 Acct 775-Miscellaneous Production Exp	EXP775	Page 9, Line 20
3 Acct 777-Lease Expense	EXP777	Page 9, Line 21
4 LNG Gas Prod Labor Accts 781 to 782	LABLM	Pg 19, Ln 21 to 22
5 Acct 781-Maintenance of Struct & Improv	EXP781	Page 9, Line 24
6 Acct 782-Maintenance of Production Eq	EXP782	Page 9, Line 25
7 Total Intangible Plant	INTPLT	Page 2, Line 5
8 Total Production Plant	PRODPLT	Page 2, Line 20
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	Pg 20, Ln 2 to 9
10 Acct 851-Sys Control & Load Dispatch	EXP851	Page 11, Line 2
11 Acct 852-Communication System Exp	EXP852	Page 11, Line 3
12 Acct 857-Measuring & Regul Stat Exp	EXP857	Page 11, Line 4
13 Acct 874-Mains and Services Exp	EXP874	Page 11, Line 5
14 Acct 878-Meter & House Regulator Exp	EXP878	Page 11, Line 6
15 Acct 879-Customer Installations Exp	EXP879	Page 11, Line 7
16 Acct 880-Other Expenses	EXP880	Page 11, Line 8
17 Acct 881-Rents	EXP881	Page 11, Line 9
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	Pg 20, Ln 12 to 18
19 Acct 886-Maintenance of Struct & Improv	EXP886	Page 11, Line 12
20 Acct 887-Maintenance of Mains	EXP887	Page 11, Line 13
21 Acct 888-Maint of Compressor Station Eq	EXP888	Page 11, Line 14
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	Page 11, Line 15
23 Acct 892-Maintenance of Services	EXP892	Page 11, Line 16
24 Acct 893-Mint of Meters and House Regul	EXP893	Page 11, Line 17
25 Acct 894-Maintenance of Other Equip	EXP894	Page 11, Line 18
26 Customer Accts Labor Accts 902 to 903	LABCA	Pg 21, Ln 2 to 3
27 Acct 902-Meter Reading Expenses	EXP902	Page 12, Line 2
28 Acct 903-Cust Records & Collection Exp	EXP903	Page 12, Line 8
29 Sales Expenses Labor Accts 912 to 916	LABSA	Pg 21, Ln 6 to 8
30 Acct 912-Demonstrating & Selling Exp	EXP912	Page 12, Line 28
31 Acct 913-Advertising Exp	EXP913	Page 12, Line 32
32 Acct 916-Miscellaneous Sales Exp	EXP916	Page 12, Line 33
33 Acct 920-Administrative & General Sal	EXP920	Page 13, Line 1
34 Acct 921-Office Supplies & Expenses	EXP921	Page 13, Line 4
35 Acct 922-Administrative Exp Transf-Cr	EXP922	Page 13, Line 5
36 Acct 923-Outside Services Employed	EXP923	Page 13, Line 38
37 Acct 924-Property Insurance	EXP924	Page 13, Line 39
38 Acct 925-Injuries & Damages	EXP925	Page 13, Line 43
39 Acct 926-Employees Pensions & Benef	EXP926	Page 14, Line 4
40 Acct 928-Regulatory Commission Exp	EXP928	Page 14, Line 7

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-39

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 929-Duplicate Charges-Cr	EXP929	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2 Acct 930-Miscellaneous General Exp	EXP930	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678
3 Acct 931 Rents	EXP931	0.97337	0.59326	0.07934	0.00000	0.07475	0.08998	0.03760
4 Acct 932 Maintenance of General Plant	EXP932	0.96507	0.58805	0.05824	0.00000	0.06806	0.08582	0.05212
5 Total LPG Gas Operating Labor	TLABPO	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
6 Tot LPG Gas Maintenance Labor	TLABPM	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
7 Total LNG Gas Operating Labor	TLABLO	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
8 Tot LNG Gas Maintenance Labor	TLABLM	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
9 Total Transm & Distr Operating Labor	TLABDO	1.00000	0.57749	0.05179	0.00000	0.07010	0.10393	0.06260
10 Total Transm & Distr Maintenance Labor	TLABDM	1.00000	0.59378	0.04592	0.00000	0.06714	0.09847	0.06847
11 Total Customer Accounts Labor	TLABCA	1.00000	0.72861	0.09910	0.00000	0.07501	0.03535	0.01564
12 Total Sales Expense Labor	TLABSA	1.00000	0.64097	0.06434	0.00000	0.05520	0.06448	0.04689
13 Total General Plant	GENPLT	0.96507	0.58805	0.05824	0.00000	0.06806	0.08582	0.05212
14 Claimed Sales Revenues less Gas Costs	REVCLAIM	0.91557	0.57136	0.06185	0.00000	0.06426	0.07295	0.04678
15 Sales Expense Accounts 912 to 913	EXP9123	1.00000	0.60009	0.04454	0.00000	0.05705	0.08568	0.06478
16 Acct 367 Mains and Acct 380 Services	PLT36780	1.00000	0.61266	0.05223	0.00000	0.06785	0.08193	0.06402
17 Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
18 Acct 380,381,382 & 383 - Serv.Met & Reg	PLT3803	1.00000	0.69472	0.10511	0.00000	0.07897	0.04540	0.02283
19 Transm & Distr Oper Accts 851 to 879	EXP8519	1.00000	0.57747	0.04985	0.00000	0.06949	0.10339	0.06427
20 Total Customer Deposits	TOTCDEP	1.00000	0.01228	0.00050	0.00000	0.32576	0.30255	0.08000
21 Acct 386 Other Property on Cust's Prem	PLT386	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
22 Total Transmission & Distribution Plant	DISTRPLT	1.00000	0.60725	0.05497	0.00000	0.06908	0.08612	0.06139
23 Acct 904-Uncollectible Accts-Gas Sales	EXP904S	0.34308	0.21982	0.07005	0.00000	0.03354	0.00747	0.00128
24 Acct 904-Uncollectible Accts-Other Rev	EXP904O	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
25 Acct 367-Gas Mains - Bare Steel	PLT367BS	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
26 Acct 367-Gas Mains - Joint Clamping	PLT367JC	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
27 Acct 367-Gas Mains - Cast Iron	PLT367CI	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
28 Acct 367-Gas Mains - Cathodic Protect	PLT367CP	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
29 Acct 367-Gas Mains - Coated Steel	PLT367CS	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
30 Acct 367-Gas Mains - Plastic	PLT367P	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
31 Acct 391-Office Equipment	PLT391OE	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
32 Acct 391-Office IT Equipment	PLT391IT	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
33 Acct 397-Comm Equip MetScan	PLT397M	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
34 Acct 397-Comm Equip ERT/ITRON	PLT397E	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
35 Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
36 Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
37 Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	0.28600	0.15131	0.00290	0.00000	0.01723	0.03504	0.02742
38 Total Gas Operation & Maintenance Labor	OMLAB	0.95479	0.59378	0.06031	0.00000	0.06733	0.07889	0.04903
39 Inflation Adjustment Residual O&M	OTHOMINF	0.94903	0.58388	0.05628	0.00000	0.06642	0.08102	0.05183

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 85 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-39

	ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Acct 929-Duplicate Charges-Cr	EXP929	0.00000	0.00000	0.00000	0.00000	0.00000
2 Acct 930-Miscellaneous General Exp	EXP930	0.00825	0.01336	0.02384	0.02012	0.03280
3 Acct 931 Rents	EXP931	0.00493	0.02108	0.03525	0.01816	0.01903
4 Acct 932 Maintenance of General Plant	EXP932	0.00945	0.01475	0.02855	0.02273	0.03729
5 Total LPG Gas Operating Labor	TLABPO	0.00574	0.00243	0.00981	0.01142	0.02270
6 Tot LPG Gas Maintenance Labor	TLABPM	0.00574	0.00243	0.00981	0.01142	0.02270
7 Total LNG Gas Operating Labor	TLABLO	0.00574	0.00243	0.00981	0.01142	0.02270
8 Tot LNG Gas Maintenance Labor	TLABLM	0.00574	0.00243	0.00981	0.01142	0.02270
9 Total Transm & Distr Operating Labor	TLABDO	0.01127	0.01608	0.03499	0.02750	0.04424
10 Total Transm & Distr Maintenance Labor	TLABDM	0.01302	0.01192	0.02757	0.02869	0.05149
11 Total Customer Accounts Labor	TLABCA	0.00255	0.01484	0.01216	0.00661	0.01012
12 Total Sales Expense Labor	TLABSA	0.00945	0.01115	0.02855	0.02658	0.05558
13 Total General Plant	GENPLT	0.00825	0.01336	0.02384	0.02273	0.03729
14 Claimed Sales Revenues less Gas Costs	REVCLAIM	0.01359	0.01019	0.02838	0.03145	0.03280
15 Sales Expense Accounts 912 to 913	EXP9123	0.01193	0.01152	0.02402	0.02653	0.06427
16 Acct 367 Mains and Acct 380 Services	PLT36780	0.00200	0.02599	0.04103	0.01536	0.04731
17 Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	0.00119	0.01838	0.01839	0.01027	0.00708
18 Acct 380,381,382 & 383 - Serv, Met & Reg	PLT3803	0.01173	0.01543	0.03425	0.02802	0.04611
19 Transm & Distr Oper Accts 851 to 879	EXP8519	0.02799	0.07895	0.12824	0.03832	0.00539
20 Total Customer Deposits	TOTCDEP	0.02009	0.00851	0.03429	0.03992	0.07936
21 Acct 386 Other Property on Cust's Prem	PLT386	0.01117	0.01317	0.02679	0.02592	0.04415
22 Total Transmission & Distribution Plant	DISTRPLT	0.00002	0.00735	0.00271	0.00057	0.00027
23 Acct 904-Uncollectible Accts-Gas Sales	EXP904S	0.02009	0.00851	0.03429	0.03992	0.07936
24 Acct 904-Uncollectible Accts-Other Rev	EXP904O	0.02009	0.00851	0.03429	0.03992	0.07936
25 Acct 367-Gas Mains - Bare Steel	PLT367BS	0.02009	0.00851	0.03429	0.03992	0.07936
26 Acct 367-Gas Mains - Cast Iron	PLT367CI	0.02009	0.00851	0.03429	0.03992	0.07936
27 Acct 367-Gas Mains - Cathodic Protect	PLT367CP	0.02009	0.00851	0.03429	0.03992	0.07936
28 Acct 367-Gas Mains - Coated Steel	PLT367CS	0.02009	0.00851	0.03429	0.03992	0.07936
29 Acct 367-Gas Mains - Plastic	PLT367P	0.01015	0.01370	0.02739	0.02342	0.04011
30 Acct 391-Office Equipment	PLT391OE	0.00200	0.02599	0.04103	0.01536	0.00708
31 Acct 391-Office Equip	PLT391IT	0.00200	0.02599	0.04103	0.01536	0.00708
32 Acct 397-Comm Equip MetScan	PLT397M	0.00574	0.00243	0.00981	0.01142	0.02270
33 Acct 397-Comm Equip ERT/ITRON	PLT397E	0.00574	0.00243	0.00981	0.01142	0.02270
34 Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	0.00574	0.00243	0.00981	0.01142	0.02270
35 Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	0.00574	0.00243	0.00981	0.01142	0.02270
36 Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	0.00894	0.01406	0.02589	0.02122	0.03535
37 Total Gas Operation & Maintenance Labor	OMLAB	0.00961	0.01356	0.02615	0.02230	0.03800
38 Inflation Adjustment Residual O&M	OTHOMINF					
39						

30-Jun-05

11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-39

TOTAL COMPANY
INPUT

ALLOC

1	Acct 929-Duplicate Charges-Cr	EXP929	Page 14, Line 8
2	Acct 930-Miscellaneous General Exp	EXP930	Page 14, Line 12
3	Acct 931 Rents	EXP931	Page 14, Line 18
4	Acct 932 Maintenance of General Plant	EXP932	Page 14, Line 22
5	Total LPG Gas Operating Labor	TLABPO	Page 19, Line 5
6	Tot LPG Gas Maintenance Labor	TLABPM	Page 19, Line 9
7	Total LNG Gas Operating Labor	TLABLO	Page 19, Line 17
8	Tot LNG Gas Maintenance Labor	TLABLM	Page 19, Line 21
9	Total Transm & Distr Operating Labor	TLABDO	Page 20, Line 10
10	Total Transm & Distr Maintenance Labor	TLABDM	Page 20, Line 19
11	Total Customer Accounts Labor	TLABCA	Page 21, Line 4
12	Total Sales Expense Labor	TLABSA	Page 21, Line 9
13	Total General Plant	GENPLT	Pg 4, Ln 3 & 17
14	Claimed Sales Revenues less Gas Costs	REVCLAIM	See Allocator Descriptions
15	Sales Expense Accounts 912 to 913	EXP9123	Pg 12, Ln 28 & 32
16	Acct 367 Mains and Acct 380 Services	PLT36780	Pg 3, Ln 11 & 14
17	Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	Pg 3, Line 15, 16 & 17
18	Acct 380,381,382 & 383 - Serv,Met & Reg	PLT3803	Pg 3, Line 14, 15, 16 & 17
19	Transm & Distr Oper Accts 851 to 879	EXP8519	Pg 11, Line 2 to 7
20	Total Customer Deposits	TOTCDEP	Page 7, Line 23
21	Acct 386 Other Property on Cust's Prem	PLT386	Page 3, Line 21
22	Total Transmission & Distribution Plant	DISTRPLT	Page 3, Line 23 & 25
23	Acct 904-Uncollectible Accts-Gas Sales	EXP904S	Pg 12, Line 9 to 19
24	Acct 904-Uncollectible Accts-Other Rev	EXP904O	Page 12, Line 22 & 23
25	Acct 367-Gas Mains - Bare Steel	PLT367BS	Page 3, Line 4
26	Acct 367-Gas Mains - Joint Clamping	PLT367JC	Page 3, Line 5
27	Acct 367-Gas Mains - Cast Iron	PLT367CI	Page 3, Line 6
28	Acct 367-Gas Mains - Cathodic Protect	PLT367CP	Page 3, Line 7
29	Acct 367-Gas Mains - Coated Steel	PLT367CS	Page 3, Line 8
30	Acct 367-Gas Mains - Plastic	PLT367P	Page 3, Line 9
31	Acct 391-Office Equipment	PLT391OE	Page 4, Line 4
32	Acct 391-Office IT Equipment	PLT391IT	Page 4, Line 5
33	Acct 397-Comm Equip Metscan	PLT397M	Page 4, Line 13
34	Acct 397-Comm Equip ERT/ITRON	PLT397E	Page 4, Line 14
35	Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	Page 2, Line 6 & 7
36	Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	Page 2, Line 10 & 11
37	Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	Page 2, Line 15 & 16
38	Total Gas Operation & Maintenance Labor	OMLAB	Page 22, Line 15
39	Inflation Adjustment Residual O&M	OTHOMINF	See Allocator Descriptions

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-40

ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
GASCOSTS EXP903T	0.00000 1.00000	0.00000 0.72167	0.00000 0.09667	0.00000 0.00000	0.00000 0.07712	0.00000 0.03799	0.00000 0.01724
1 Total Gas Supply Expense							
2 Acct 903-Cust Records & Coll Subtotal							
3							
4							
5							
6							
7							
8							
9							
10							
11 <u>NISource Service Charges Allocators</u>							
12 Basis 1 - 50% Gross Plant	0.97455	0.59128	0.05350	0.00000	0.06732	0.08446	0.05960
13 Basis 1 - 50% O&M less Gas & NIS 923	0.86070	0.53122	0.05963	0.00000	0.06190	0.07042	0.04354
14 Basis 10 - Number of Annual Customers	1.00000	0.78471	0.11808	0.00004	0.05910	0.01666	0.00220
15 Basis 11 - Labor	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
16 Basis 2 - Gross Plant	0.97455	0.59128	0.05350	0.00000	0.06732	0.08446	0.05960
17 Basis 20 - Total Direct Billed	0.93032	0.57496	0.05801	0.00000	0.06460	0.07687	0.05065
18 Basis 7 - 50% Deprec Plant	0.97555	0.59180	0.05347	0.00000	0.06738	0.08446	0.05986
19 Basis 7 - 50% O&M less NIS 923	0.15952	0.09846	0.01105	0.00000	0.01147	0.01305	0.00807
20 Basis 9 - Labor	0.96181	0.58604	0.05492	0.00000	0.06683	0.08489	0.05436
21 Basis Co 12 - Oth NISource Serv Chrgs	0.93635	0.60290	0.06628	0.00000	0.06377	0.06779	0.04343
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 88 of 322

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-40

[illegible]

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOC TOTAL COMPANY INPUT

INTERNALLY DEVELOPED CONT-40

1 Total Gas Supply Expense Page 10 , Line 7
2 Acct 903-Cust Records & Coll Subtotal Pg 12 , Line 3 to 5
3
4
5
6
7
8
9
10

NISource Service Charges Allocators

11 Basis 1 - 50% Gross Plant Page 4 , Line 18
12 Basis 1 - 50% O&M less Gas & NIS 923 See Allocator Descriptions
13 Basis 10 - Number of Annual Customers Page 26 , Line 31
14 Basis 11 - Labor Page 26 , Line 31
15 Basis 2 - Gross Plant Page 22 , Line 21
16 Basis 20 - Total Direct Billed Page 4 , Line 18
17 Basis 7 - 50% Deprec Plant Page 13 , Line 28
18 Basis 7 - 50% O&M less NIS 923 See Allocator Descriptions
19 Basis 9 - Labor See Allocator Descriptions
20 Basis Co 12 - Oth NISource Serv Chrgs Page 22 , Line 21
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-41

REVENUES FROM GAS SALES

Revenues Firm Sales of Gas

1
2
3
4
5
6
7
8
9
10

ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
	1.00000	0.67571	0.02263	0.00001	0.06674	0.09792	0.04663

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 91 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

11:19 AM

30-Jun-05

DELIVERY COMPONENTS

INTERNALLY DEVELOPED CONT-41

REVENUES FROM GAS SALES

Revenues Firm Sales of Gas

ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
-------	---	---	---	--	--

	0.01024	0.01207	0.03184	0.01883	0.01738
--	---------	---------	---------	---------	---------

1
2
3
4
5
6
7
8
9
10

30-Jun-05 11:19 AM

DELIVERY COMPONENTS

ALLOC TOTAL COMPANY
INPUT

INTERNALLY DEVELOPED CONT-41

REVENUES FROM GAS SALES

1 Revenues Firm Sales of Gas

2
3
4
5
6
7
8
9
10

BAY STATE GAS COMPANY
RECONCILIATION TO EXH BSG/JES-1, SCH JES-1
12 MONTHS ENDED DECEMBER 31, 2004

23-Jun-05 03:43 PM

Line No.	Description	Exh BSG/JES-1 Sch JES-1 Revenue Requirement	Adjustment for Weather & Deferred Gas Revenues	Adjustment for Special Contract Increase	Adjustment for Special Contract Revenues AG-9-2	Total COS Per Exh BSG/JLH-2 Sch JLH-2-1	Delivery COS Per Exh BSG/JLH-2 Sch JLH-2-2	Supply COS Per Exh BSG/JLH-2 Sch JLH-2-3
		\$						
1	Total Rate Revenue	483,809,637	17,079,967	(418,748)	(404,852)	500,066,003	160,688,861	339,377,146
2	Other Operating Revenues	20,337,942		418,748	404,852	21,161,543	20,244,654	916,888
3	Total Operation Revenue	504,147,579	17,079,967	0	0	521,227,546	180,933,515	340,294,034
4	Operating Expenses:							
5	Cost of Gas	307,478,651	17,079,967			324,558,618	0	324,558,618
6	O&M Expense	99,528,001				99,528,001	86,286,405	13,241,598
7	Depreciation	28,800,958				28,800,958	28,159,831	641,127
8	Amortization	6,552,895				6,552,895	6,403,742	149,153
9	Taxes Other Than Income	10,067,165				10,067,165	9,775,438	291,729
10	Interest on Customer Deposits	<u>72,506</u>				72,506	72,506	0
11	Total Operating Expenses (Lines 3 through 8)	452,500,177	17,079,967	0	0	469,580,144	130,697,921	338,882,226
12	Operating Income Before Income Taxes (Line 1 less Line 9)	51,647,402	0	0	0	51,647,402	50,235,594	1,411,809
13	Income Taxes	<u>15,709,253</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>15,709,253</u>	<u>15,279,596</u>	<u>429,657</u>
14	Operating Income After Income Taxes (Line 10 less Line 11)	<u>35,938,149</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>35,938,149</u>	<u>34,955,998</u>	<u>982,152</u>
15	Rate Base	<u>397,106,628</u>				<u>397,106,628</u>	<u>386,254,124</u>	<u>10,852,504</u>
16	Return on Rate Base	9.05%				9.05%	9.05%	9.05%
17	Incremental Tax Rate	0.39225						

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

SUMMARY OF RESULTS		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVELOPMENT OF RATE BASE									
1	Gas Plant in Service		754,561,098	459,546,304	40,473,034	1,513	52,436,776	66,161,719	45,924,428
2	Less: Depreciation Reserve		283,392,262	180,382,206	18,860,620	425	20,337,041	21,070,302	14,450,825
3	Net Gas Plant in Service		471,168,836	279,164,098	21,612,415	1,088	32,099,735	45,091,417	31,473,603
ADD:									
4	Cash Working Capital		11,453,614	7,312,569	744,672	27	841,564	894,538	530,637
5	Materials & Supplies		3,408,069	2,065,294	186,491	7	235,452	295,926	209,737
6	Total Additions to Net Plant		14,861,682	9,377,863	931,162	34	1,077,017	1,190,464	740,374
DEDUCT:									
7	Deferred Taxes		85,522,538	52,089,307	4,595,062	171	5,943,757	7,498,880	5,196,052
8	Unamortized Pre-1971 ITC		11,170	6,803	599	0	776	979	680
9	Customer Contributions		11,088	7,703	1,165	0	876	503	253
10	Customer Deposits		3,090,784	37,964	1,551	0	1,006,862	935,120	247,259
11	Unclaimed Checks		278,310	176,895	18,094	1	19,834	21,786	13,532
12	Total Deductions to Net Plant		88,913,890	52,318,672	4,616,470	172	6,972,104	8,457,269	5,457,776
13	Total Rate Base		397,106,628	236,223,289	17,927,107	950	26,204,647	37,824,612	26,756,200
DEVELOPMENT OF RETURN									
14	Revenues from Sales of Gas		482,977,147	325,718,389	10,873,897	2,743	32,207,039	47,400,340	22,736,546
15	Other Operating Revenues		16,835,677	8,701,919	206,516	59	1,229,322	2,165,860	1,565,573
16	Total Gas Operating Revenues		499,812,825	334,420,307	11,080,413	2,802	33,436,361	49,566,200	24,302,119
LESS: OPERATING EXPENSES									
17	Operation & Maintenance Expense		424,086,621	283,416,094	12,021,505	2,570	28,414,796	42,269,138	19,940,217
18	Depreciation & Amortization Expense		35,353,853	22,094,108	2,293,510	54	2,539,360	2,855,594	1,836,355
19	Taxes Other Than Income		10,067,167	6,142,343	544,599	20	701,195	887,029	600,073
20	Interest on Customer Deposits		72,506	891	36	0	23,620	21,937	5,800
21	Income Taxes		7,309,327	6,222,459	(1,688,723)	51	388,738	953,120	447,178
22	Total Operating Expenses		476,889,474	317,875,895	13,170,928	2,695	32,067,708	46,986,819	22,829,623
23	Operating Income		22,923,351	16,544,412	(2,090,515)	107	1,368,653	2,579,381	1,472,496
24	Rate of Return		5.77%	7.00%	-11.66%	11.24%	5.22%	6.82%	5.50%
25	Index Rate of Return		1.000	1.213	-0.020	1.947	0.905	1.181	0.953

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 95 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		HIGH WINTER LRG HI ANNUAL G-43 & T-43		LOW WINTER LOW ANNUAL G-50 & T-50		LOW WINTER MED ANNUAL G-51 & T-51		LOW WINTER HIGH ANNUAL G-52 & T-52		LOW WINTER LRG HI ANNUAL G-53 & T-53	
ALLOC											
SUMMARY OF RESULTS											
DEVELOPMENT OF RATE BASE											
1	Gas Plant in Service	8,428,999		9,839,523		20,122,202		19,092,700		32,523,900	
2	Less: Depreciation Reserve	2,460,266		3,902,506		6,528,550		5,970,559		9,428,961	
3	Net Gas Plant in Service	5,968,732		5,937,017		13,593,652		13,122,141		23,094,939	
ADD:											
4	Cash Working Capital	97,827		167,200		281,497		220,748		362,335	
5	Materials & Supplies	38,162		45,162		92,306		88,677		150,854	
6	Total Additions to Net Plant	135,989		212,362		373,803		309,425		513,189	
DEDUCT:											
7	Deferred Taxes	953,877		1,117,549		2,283,782		2,161,746		3,682,254	
8	Unamortized Pre-1971 ITC	125		146		298		283		481	
9	Customer Contributions	13		204		204		114		53	
10	Customer Deposits	86,516		244,033		396,375		118,452		16,853	
11	Unclaimed Checks	2,411		3,990		6,911		5,672		9,185	
12	Total Deductions to Net Plant	1,042,943		1,366,021		2,687,570		2,286,266		3,708,625	
13	Total Rate Base	5,061,778		4,783,357		11,279,886		11,145,300		19,899,502	
DEVELOPMENT OF RETURN											
14	Revenues from Sales of Gas	4,990,170		5,812,707		15,390,159		9,184,126		8,661,033	
15	Other Operating Revenues	324,028		183,341		599,471		637,537		1,222,052	
16	Total Gas Operating Revenues	5,314,198		5,996,048		15,989,630		9,821,663		9,883,084	
LESS: OPERATING EXPENSES											
17	Operation & Maintenance Expense	4,762,591		5,295,696		14,355,136		7,702,857		5,906,021	
18	Depreciation & Amortization Expense	314,026		519,564		918,780		774,605		1,207,894	
19	Taxes Other Than Income	110,806		133,522		271,399		249,994		426,186	
20	Interest on Customer Deposits	2,030		5,725		9,298		2,779		391	
21	Income Taxes	(8,885)		(38,616)		41,599		300,731		691,676	
22	Total Operating Expenses	5,180,568		5,915,891		15,596,212		9,030,966		8,232,167	
23	Operating Income	133,631		80,156		393,417		790,697		1,650,917	
24	Rate of Return	2.64%		1.68%		3.49%		7.09%		8.30%	
25	Index Rate of Return	0.457		0.290		0.604		1.229		1.437	

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVELOPMENT OF RATE BASE-2		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
GAS PLANT IN SERVICE									
INTANGIBLE PLANT									
1	301 Organization	PLANT	4,432,919	2,699,792	237,775	9	308,061	388,694	269,802
2	Adj Organization	PLANT	(3,743,730)	(2,280,054)	(200,808)	(8)	(260,167)	(328,264)	(227,856)
3	Total Account 301		689,189	419,738	36,967	1	47,894	60,431	41,946
4	303 Misc. Intangible Plant	LABOR	34,573,711	21,189,433	1,909,436	65	2,422,899	3,095,174	1,941,865
5	Total Intangible Plant		35,262,900	21,609,171	1,946,403	66	2,470,793	3,155,605	1,983,812
PRODUCTION PLANT									
304 Land & Land Rights									
6	LNG Related	DEMLNG	264,235	171,422	1,726	0	20,643	33,264	16,675
7	LPG Related	DEMLPG	102,897	66,754	672	0	8,039	12,953	6,494
8	LNG & LPG Related	PLT304L	45,459	29,492	297	0	3,551	5,723	2,869
9	Total Account 304		412,592	267,668	2,695	0	32,232	51,940	26,038
305 Structures & Improvements									
10	LNG Related	DEMLNG	1,119,956	726,569	7,314	1	87,493	140,987	70,678
11	LPG Related	DEMLPG	648,808	420,912	4,237	1	50,686	81,676	40,945
12	LNG & LPG Related	PLT305L	600,187	389,370	3,920	1	46,888	75,555	37,876
13	Total Account 305		2,368,951	1,536,851	15,471	3	185,067	298,219	149,499
14	311 L.P. Gas Equipment	DEMLPG	4,339,415	2,815,185	28,340	5	339,003	546,273	273,850
320 Other Equipment									
15	LNG Related	DEMLNG	577,660	374,755	3,773	1	45,128	72,719	36,455
16	LPG Related	DEMLPG	175,725	114,001	1,148	0	13,728	22,121	11,090
17	LNG & LPG Related	PLT320L	65,860	42,727	430	0	5,145	8,291	4,156
18	Total Account 320		819,245	531,483	5,350	1	64,001	103,132	51,701
19	321 L.N.G. Equipment	DEMLNG	15,428,067	10,008,921	100,757	17	1,205,269	1,942,183	973,629
20	Total Production Plant		23,368,270	15,160,108	152,612	26	1,825,572	2,941,746	1,474,717

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 97 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALOC		HIGH WINTER LRG HI ANNUAL G-43 & T-43		LOW WINTER LOW ANNUAL G-50 & T-50		LOW WINTER MED ANNUAL G-51 & T-51		LOW WINTER HIGH ANNUAL G-52 & T-52		LOW WINTER LRG HI ANNUAL G-53 & T-53	
DEVELOPMENT OF RATE BASE-2													
GAS PLANT IN SERVICE													
INTANGIBLE PLANT													
1	301 Organization	PLANT		49,520		57,806		118,216		112,168		191,075	
2	Adj Organization	PLANT		(41,821)		(48,819)		(99,837)		(94,729)		(161,368)	
3	Total Account 301			7,699		8,987		18,379		17,439		29,707	
4	303 Misc. Intangible Plant	LABOR		365,544		480,207		962,511		814,184		1,392,393	
5	Total Intangible Plant			373,243		489,194		980,890		831,622		1,422,099	
PRODUCTION PLANT													
6	304 Land & Land Rights	DEMLNG		3,733		1,435		4,829		3,675		6,834	
7	LNG Related	DEMLPG		1,454		559		1,880		1,431		2,661	
8	LPG Related	PLT304L		642		247		831		632		1,176	
9	LNG & LPG Related			5,829		2,241		7,540		5,738		10,670	
	Total Account 304												
10	305 Structures & Improvements	DEMLNG		15,822		6,084		20,467		15,576		28,964	
11	LNG Related	DEMLPG		9,166		3,525		11,857		9,024		16,780	
12	LPG Related	PLT305L		8,479		3,261		10,968		8,347		15,522	
13	LNG & LPG Related			33,467		12,870		43,293		32,947		61,266	
14	Total Account 305	DEMLPG		61,304		23,574		79,303		60,352		112,226	
15	311 L.P. Gas Equipment	DEMLNG		8,161		3,138		10,557		8,034		14,939	
16	LNG Related	DEMLPG		2,482		955		3,211		2,444		4,545	
17	LPG Related	PLT320L		930		358		1,204		916		1,703	
18	LNG & LPG Related			11,574		4,451		14,972		11,394		21,187	
19	Total Account 320	DEMLNG		217,955		83,815		281,948		214,571		399,002	
20	321 L.N.G. Equipment			330,127		126,951		427,056		325,003		604,352	
	Total Production Plant												

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVELOPMENT OF RATE BASE CONT-3		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
GAS PLANT IN SERVICE CONT									
DISTRIBUTION PLANT									
1	364 Land & Land Rights	DISTR	219,041	115,885	2,222		13,196	26,835	20,998
2	365 Right of Way	DISTR	79,051	41,823	802		4,762	9,885	7,578
3	366 Structures & Improvements	DISTR	2,108,612	1,115,578	21,388		127,032	258,330	202,140
4	367 Gas Mains		2,554,359	1,351,404	25,910		153,886	312,940	244,871
5	Gas Mains - Bare Steel	DISTR	20,020,721	10,592,119	203,078		1,206,139	2,452,779	1,919,268
6	Gas Mains - Joint Clamping	DISTR	5,690,941	3,010,837	57,725		342,848	697,209	545,557
7	Gas Mains - Cast Iron	DISTR	8,274,626	4,377,756	83,933		498,501	1,013,741	793,240
8	Gas Mains - Cathodic Protection	DISTR	146,116,729	77,304,202	1,482,119		8,802,732	17,901,054	14,007,349
9	Gas Mains - Coated Steel	DISTR	126,075,826	66,701,405	1,278,837		7,595,377	15,445,803	12,086,146
10	Gas Mains - Plastic	DISTR	1,053,621	557,426	10,687		63,475	129,081	101,004
11	Adj Gas Mains - Plastic	DISTR	309,786,822	163,895,149	3,142,289		18,662,957	37,952,606	29,697,435
12	Total Account 367		327,265	173,142	3,320		19,716	40,094	31,373
13	368 Compressor Station Equipment	DISTR	12,355,156	6,536,592	125,323		744,330	1,513,855	1,184,416
14	369 Meas. & Reg. Station Equipment	DISTR	228,746,364	166,042,757	24,984,666		17,876,084	6,169,869	4,778,556
15	380 Gas Services	CUST380	24,915,974	15,188,301	2,339,184		2,023,106	2,385,861	700,742
16	381 Gas Meters	CUST381	45,198,411	27,552,090	4,243,357		3,669,983	4,328,031	1,271,169
17	382 Meter Installations	CUST382	13,612,047	8,297,644	1,277,938		1,105,260	1,303,439	382,828
18	383 Gas Regulators	CUST383							
19	386 Other Property on Cust's Premises		14,053,382	7,435,052	142,549		846,639	1,721,708	1,347,215
20	Gas Water Heaters	CUST3860	569,752	301,432	5,779		34,324	69,801	54,619
21	Cascade Diamond Boilers	CUST3862	7,835,153	4,145,249	79,475		472,025	959,900	751,110
22	Conversion Burners	CUST3863	22,458,288	11,881,733	227,803		1,352,989	2,751,410	2,152,944
23	Total Account 386		1,719,559	909,746	17,442		103,594	210,667	164,844
24	387 Other Equipment	DISTR	661,526,587	401,750,440	36,385,734		45,703,010	56,950,481	40,595,023
25	Total Distribution Plant								
TRANSMISSION PLANT									
24	379 Other Equipment	DISTR	510,252	269,953	5,176		30,740	62,512	48,915
25	Total Transmission Plant		510,252	269,953	5,176		30,740	62,512	48,915

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 99 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVELOPMENT OF RATE BASE CONT-3							
GAS PLANT IN SERVICE CONT							
DISTRIBUTION PLANT							
1	364 Land & Land Rights	DISTR	4,400	1,865	7,511	8,744	17,384
2	365 Right of Way	DISTR	1,588	673	2,711	3,156	6,274
3	366 Structures & Improvements	DISTR	42,355	17,952	72,309	84,171	167,348
4	367 Gas Mains						
5	Gas Mains - Bare Steel	DISTR	51,308	21,747	87,595	101,965	202,724
6	Gas Mains - Joint Clamping	DISTR	402,146	170,449	686,554	799,185	1,588,925
7	Gas Mains - Cast Iron	DISTR	114,311	48,451	195,155	227,170	451,656
8	Gas Mains - Cathodic Protection	DISTR	166,208	70,447	283,755	330,306	656,708
9	Gas Mains - Coated Steel	DISTR	2,934,970	1,243,984	5,010,862	5,832,673	11,596,414
10	Gas Mains - Plastic	DISTR	2,532,419	1,073,363	4,323,416	5,032,682	10,005,887
11	Adj Gas Mains - Plastic	DISTR	21,164	8,970	36,131	42,058	83,620
12	Total Account 367		6,222,526	2,637,410	10,623,268	12,366,039	24,585,934
13	368 Compressor Station Equipment	DISTR	6,574	2,786	11,223	13,064	25,973
14	369 Meas. & Reg. Station Equipment	DISTR	248,172	105,187	423,685	493,192	980,555
15	380 Gas Services	CUST380	203,287	3,565,851	2,310,269	1,922,133	892,892
16	381 Gas Meters	CUST381	49,813	647,509	1,022,284	382,655	176,519
17	382 Meter Installations	CUST382	90,363	1,174,602	1,854,457	694,148	320,211
18	383 Gas Regulators	CUST383	27,214	353,746	558,492	209,051	96,435
19	386 Other Property on Cust's Premises						
20	Gas Water Heaters	CUST3860	282,283	119,645	481,921	560,982	1,115,333
21	Cascade Diamond Boilers	CUST3862	11,444	4,851	19,538	22,743	45,218
22	Conversion Burners	CUST3863	157,381	66,706	268,885	312,763	621,829
23	Total Account 386		451,108	191,202	770,144	896,488	1,782,380
24	387 Other Equipment	DISTR	34,540	14,640	58,967	68,641	136,471
25	Total Distribution Plant		7,381,938	8,713,423	17,715,320	17,141,481	29,188,376
TRANSMISSION PLANT							
26	379 Other Equipment	DISTR	10,249	4,344	17,498	20,368	40,496
27	Total Transmission Plant		10,249	4,344	17,498	20,368	40,496

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVELOPMENT OF RATE BASE CONT-4									
GAS PLANT IN SERVICE CONT									
GENERAL PLANT									
1	389 Land & Land Rights	LABOR	172,321	105,612	9,517	0	12,076	15,427	9,679
2	390 Structures & Improvements	LABOR	7,303,824	4,476,346	403,375	14	511,846	653,867	410,226
3	Total General Plant		7,476,144	4,581,957	412,892	14	523,922	669,294	419,905
GENERAL PLANT (Equipment)									
4	391 Office Equipment	LABOR	5,917,985	3,626,997	326,838	11	414,728	529,801	332,389
5	Office Equipment	LABOR	5,502,374	3,372,279	303,885	10	385,602	492,594	309,046
6	Total Account 391		11,420,359	6,999,276	630,723	21	800,330	1,022,395	641,435
7	392 Transportation Equipment	LABOR	2,363,594	1,448,592	130,537	4	165,639	211,598	132,754
8	393 Stores Equipment	LABOR	50,473	30,933	2,787	0	3,537	4,519	2,835
9	394 Tools, Shop & Garage Equipment	LABOR	1,847,938	1,132,559	102,058	3	129,502	165,435	103,791
10	396 Power Operated Equipment	LABOR	406,425	249,088	22,446	1	28,482	36,385	22,827
11	397 Communications Equip & Metscan	LABOR	12,666,897	7,763,250	699,567	24	887,686	1,133,990	711,448
12	Communications Equip Metscan Adj	LABOR	(5,266,581)	(3,227,766)	(290,863)	(10)	(369,078)	(471,485)	(295,803)
13	Communications Equip Metscan	PLT381	644,449	392,844	60,503	0	52,327	61,710	18,125
14	Communications Equip ERT/ITRON	PLT381	2,248,171	1,370,442	211,065	0	182,545	215,277	63,228
15	Total Account 397		10,292,937	6,298,770	680,272	14	753,481	939,492	496,998
16	398 Miscellaneous Equipment	LABOR	25,220	15,457	1,393	0	1,767	2,258	1,417
17	Total General Plant (Equipment)		26,406,945	16,174,675	1,570,216	44	1,882,738	2,382,081	1,402,057
18	Total Gas Plant In Service		754,551,098	459,546,304	40,473,034	1,513	52,436,776	66,161,719	45,924,428

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 101 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVELOPMENT OF RATE BASE CONT-4												
GAS PLANT IN SERVICE CONT												
GENERAL PLANT												
		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53					
1	389 Land & Land Rights	LABOR	1,822	2,393	4,797	4,058	6,940					
2	390 Structures & Improvements	LABOR	77,223	101,445	203,334	171,999	294,148					
3	Total General Plant		79,044	103,839	208,131	176,057	301,088					
GENERAL PLANT (Equipment)												
4	391 Office Equipment	LABOR	62,570	82,197	164,753	139,364	238,336					
5	Office Equipment	LABOR	58,176	76,424	153,183	129,577	221,598					
6	Office IT Equipment		120,746	158,622	317,936	268,940	459,934					
7	Total Account 391											
8	392 Transportation Equipment	LABOR	24,990	32,829	65,801	55,661	95,189					
9	393 Stores Equipment	LABOR	534	701	1,405	1,189	2,033					
10	394 Tools, Shop & Garage Equipment	LABOR	19,538	25,667	51,445	43,517	74,422					
11	396 Power Operated Equipment	LABOR	4,297	5,645	11,315	9,571	16,368					
12	397 Communication Equipment											
13	Communications Equip & Metscan	LABOR	133,926	175,935	352,639	298,295	510,136					
14	Communications Equip Metscan Adj	LABOR	(55,683)	(73,149)	(146,618)	(124,024)	(212,102)					
15	Communications Equip Metscan	PLT381	1,288	16,748	26,441	9,897	4,566					
16	Communications Equip ERT/ITRON	PLT381	4,495	58,425	92,241	34,527	15,927					
17	Total Account 397		84,026	177,958	324,702	218,696	318,527					
18	398 Miscellaneous Equipment	LABOR	267	350	702	594	1,016					
19	Total General Plant (Equipment)		254,397	401,772	773,307	598,168	967,489					
20	Total Gas Plant In Service		8,428,999	9,839,523	20,122,202	19,092,700	32,523,900					

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVELOPMENT OF RATE BASE CONT-5									
DEPRECIATION RESERVE									
INTANGIBLE PLANT RESERVE									
1	301 Organization	PLT301	3,463,000	2,109,080	185,750	7	240,658	303,648	210,769
2	Adj Organization	PLT301	(2,936,755)	(1,788,580)	(157,523)	(6)	(204,087)	(257,505)	(178,740)
3	Total Account 301		526,245	320,500	28,227	1	36,571	46,143	32,029
4	303 Misc. Intangible Plant	PLT303	18,717,328	11,471,420	1,033,720	35	1,311,696	1,675,649	1,051,277
5	Total Intangible Plant Reserve		19,243,573	11,791,921	1,061,947	36	1,348,267	1,721,792	1,083,306
PRODUCTION PLANT RESERVE									
6	305 Structures & Improvements	PLT305	1,549,991	1,005,553	10,123	2	121,088	195,123	97,816
7	311 L.P. Gas Equipment	PLT311	3,319,616	2,153,593	21,680	4	259,335	417,894	209,493
8	320 Other Equipment	PLT320	290,326	188,348	1,896	0	22,681	36,548	18,322
9	321 L.N.G. Equipment	PLT321	3,808,926	2,471,031	24,875	4	297,560	479,492	240,372
10	Total Production Plant Reserve		8,968,860	5,818,526	58,573	10	700,664	1,129,057	566,004
DISTRIBUTION PLANT RESERVE									
11	365 Right of Way	PLT365	1,573	832	16	0	95	193	151
12	366 Structures & Improvements	PLT366	1,525,122	806,878	15,470	6	91,880	186,846	146,204
13	367 Gas Mains	PLT367	79,409,611	42,012,278	805,483	310	4,783,994	9,728,631	7,612,531
14	368 Compressor Station Equipment	PLT368	250,135	132,336	2,537	1	15,069	30,645	23,979
15	369 Meas. & Reg. Station Equipment	PLT369	3,636,205	1,923,763	36,883	14	219,061	445,479	348,582
16	380 Gas Services	PLT380	124,158,847	90,124,612	13,561,166	0	9,702,773	3,348,879	2,593,702
17	381 Gas Meters	PLT381	10,092,102	6,151,953	947,476	0	819,450	966,382	283,832
18	382 Meter Installations	PLT382	10,511,706	6,407,736	986,869	0	853,521	1,006,562	295,633
19	383 Gas Regulators	PLT383	5,385,754	3,283,053	505,630	0	437,308	515,720	151,470
20	386 Other Property on Cust's Premises								
20	Gas Water Heaters	PLT3860	2,962,994	1,567,595	30,055	12	178,504	363,002	284,045
21	Cascade Diamond Boilers	PLT3862	443,949	234,875	4,503	2	26,745	54,389	42,559
22	Conversion Burners	PLT3863	1,444,172	764,051	14,649	6	87,003	176,928	138,444
23	Total Account 386		4,851,115	2,566,520	49,207	19	292,253	594,320	465,048
24	387 Other Equipment	PLT387	371,382	196,483	3,767	1	22,374	45,499	35,602
25	Total Distribution Plant Reserve		240,193,554	153,606,444	16,914,504	351	17,237,778	16,869,154	11,956,735

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 103 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVELOPMENT OF RATE BASE CONT-5							
DEPRECIATION RESERVE							
INTANGIBLE PLANT RESERVE							
1	301 Organization	PLT301	38,685	45,158	92,351	87,626	149,268
2	Adj Organization	PLT301	(32,806)	(38,296)	(78,317)	(74,310)	(126,595)
3	Total Account 301		5,879	6,862	14,034	13,316	22,683
4	303 Misc. Intangible Plant	PLT303	197,896	259,972	521,079	440,778	753,806
5	Total Intangible Plant Reserve		203,775	266,834	535,113	454,094	776,489
PRODUCTION PLANT RESERVE							
6	305 Structures & Improvements	PLT305	21,897	8,421	28,326	21,557	40,086
7	311 L.P. Gas Equipment	PLT311	46,897	18,034	60,666	46,169	85,852
8	320 Other Equipment	PLT320	4,101	1,577	5,306	4,038	7,508
9	321 L.N.G. Equipment	PLT321	53,809	20,692	69,608	52,974	98,507
10	Total Production Plant Reserve		126,704	48,724	163,906	124,738	231,953
DISTRIBUTION PLANT RESERVE							
11	365 Right of Way	PLT365	32	13	54	63	125
12	366 Structures & Improvements	PLT366	30,634	12,984	52,300	60,880	121,040
13	367 Gas Mains	PLT367	1,595,059	676,064	2,723,129	3,169,865	6,302,268
14	368 Compressor Station Equipment	PLT368	5,024	2,130	8,578	9,985	19,852
15	369 Meas. & Reg. Station Equipment	PLT369	73,039	30,957	124,693	145,150	288,584
16	380 Gas Services	PLT380	110,340	1,935,471	1,253,967	1,043,294	484,644
17	381 Gas Meters	PLT381	20,177	262,271	414,071	154,993	71,498
18	382 Meter Installations	PLT382	21,016	273,175	431,287	161,437	74,471
19	383 Gas Regulators	PLT383	10,768	139,963	220,973	82,713	38,156
20	386 Other Property on Cust's Premises						
21	Gas Water Heaters	PLT3860	59,516	25,226	101,608	118,276	235,155
22	Cascade Diamond Boilers	PLT3862	8,917	3,780	15,224	17,722	35,234
23	Conversion Burners	PLT3863	29,008	12,295	49,524	57,648	114,615
24	Total Account 386		97,442	41,301	166,355	193,646	385,004
25	387 Other Equipment	PLT387	7,460	3,162	12,736	14,825	29,474
	Total Distribution Plant Reserve		1,970,989	3,377,491	5,408,144	5,036,850	7,815,114

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVELOPMENT OF RATE BASE CONT-6									
DEPRECIATION RESERVE CONT									
TRANSMISSION PLANT RESERVE									
1	379 Other Equipment	PLT379	223,628	118,312	2,268	1	13,472	27,397	21,438
2	Total Transmission Plant Reserve		223,628	118,312	2,268	1	13,472	27,397	21,438
GENERAL PLANT RESERVE									
3	390 Structures & Improvements	PLT390	2,188,656	1,341,377	120,875	4	153,379	195,937	122,928
4	Total General Plant Reserve		2,188,656	1,341,377	120,875	4	153,379	195,937	122,928
GENERAL PLT RESERVE (Equipment)									
5	391 Office Equipment	PLT391	7,652,128	4,689,813	422,612	14	536,255	685,049	429,769
6	392 Transportation Equipment	PLT392	1,284,999	787,547	70,968	2	90,052	115,038	72,173
7	393 Stores Equipment	PLT393	(1,968)	(1,206)	(109)	(0)	(138)	(176)	(111)
8	394 Tools, Shop & Garage Equipment	PLT394	814,696	499,308	44,994	2	57,093	72,935	45,758
9	396 Power Operated Equipment	PLT396	174,702	107,071	9,648	0	12,243	15,640	9,812
10	397 Communication Equipment	PLT397O	4,573,331	2,802,890	252,576	9	320,495	409,423	256,865
11	Communications Equip & Metscan	PLT397O	(2,145,215)	(1,314,753)	(118,476)	(4)	(150,335)	(192,048)	(120,488)
12	Communications Equip Metscan Adj	PLT397M	157,481	95,997	14,785	0	12,787	15,080	4,429
13	Communications Equip Metscan	PLT397E	49,882	30,407	4,683	0	4,050	4,777	1,403
14	Communications Equip ERT/ITRON		2,635,479	1,614,541	153,568	5	186,998	237,231	142,209
15	Total Account 397		13,955	8,553	771	0	978	1,249	784
16	398 Miscellaneous Equipment	PLT398	12,573,991	7,705,627	702,452	23	883,481	1,126,965	700,415
17	Total Depreciation Reserve		283,392,262	180,382,206	18,860,620	425	20,337,041	21,070,302	14,450,825
19	Net Gas Plant In Service		471,158,836	279,164,098	21,612,415	1,088	32,099,735	45,091,417	31,473,603

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVELOPMENT OF RATE BASE CONT-6							
DEPRECIATION RESERVE CONT							
		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
TRANSMISSION PLANT RESERVE							
1	379 Other Equipment	PLT379	4,492	1,904	7,669	8,927	17,748
2	Total Transmission Plant Reserve		4,492	1,904	7,669	8,927	17,748
GENERAL PLANT RESERVE							
3	390 Structures & Improvements	PLT390	23,140	30,399	60,931	51,541	88,144
4	Total General Plant Reserve		23,140	30,399	60,931	51,541	88,144
GENERAL PLT RESERVE (Equipment)							
5	391 Office Equipment	PLT391	80,905	106,283	213,031	180,202	308,175
6	392 Transportation Equipment	PLT392	13,586	17,848	35,774	30,261	51,751
7	393 Stores Equipment	PLT393	(21)	(27)	(55)	(46)	(79)
8	394 Tools, Shop & Garage Equipment	PLT394	8,614	11,316	22,681	19,185	32,810
9	396 Power Operated Equipment	PLT396	1,847	2,427	4,864	4,114	7,036
10	397 Communication Equipment	PLT397O	48,353	63,521	127,319	107,698	184,183
11	Communications Equip & Metscan	PLT397O	(22,681)	(29,796)	(59,721)	(50,518)	(86,395)
12	Communications Equip Metscan Adj	PLT397M	315	4,093	6,461	2,419	1,116
13	Communications Equip Metscan	PLT397E	100	1,296	2,047	766	353
14	Communications Equip ERT/ITRON		26,087	39,114	76,105	60,365	99,257
15	Total Account 397		148	194	389	329	562
16	398 Miscellaneous Equipment	PLT398	131,166	177,154	352,787	294,409	499,512
17	Tot Gen Plt Reserve (Equipment)						
17	Total Depreciation Reserve		2,460,266	3,902,506	6,528,550	5,970,559	9,428,961
19	Net Gas Plant in Service		5,968,732	5,937,017	13,593,652	13,122,141	23,094,939

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVELOPMENT OF RATE BASE CONT-7		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
ADDITIONS TO NET PLANT									
1	Cash Working Capital		0	0	0	0	0	0	0
2	Purchased Gas		11,453,614	7,312,569	744,672	27	841,564	894,538	530,637
3	Other O&M		11,453,614	7,312,569	744,672	27	841,564	894,538	530,637
	Total Cash Working Capital								
Materials & Supplies									
4	Stores Expense Undistributed	DISTRPLT	205,330	124,686	11,287	0	14,184	17,682	12,606
5	Truck Stock	DISTRPLT	140,504	85,321	7,723	0	9,706	12,100	8,626
6	Meters Stock	PLT3813	42,334	25,806	3,974	0	3,437	4,054	1,191
7	Inventory-Imprest	DISTRPLT	210,158	127,618	11,552	0	14,518	18,098	12,902
8	Mat Management System IC Stock	DISTRPLT	2,719,413	1,651,358	149,481	6	187,858	234,189	166,951
9	Appliances & Parts	PLT386	55,590	29,410	564	0	3,349	6,810	5,329
10	Other Inventory Charges	DISTRPLT	34,740	21,096	1,910	0	2,400	2,992	2,133
11	Total Materials & Supplies		3,408,069	2,065,294	186,491	7	235,452	295,926	209,737
12	Total Additions to Net Plant		14,861,682	9,377,863	931,162	34	1,077,017	1,190,464	740,374
DEDUCTIONS TO NET PLANT									
Deferred Taxes									
13	Intangible Related	INTPLT	6,131,011	3,757,095	338,413	12	429,586	548,652	344,917
14	Production Related	PRODPLT	2,503,680	1,624,256	16,351	3	195,592	315,179	158,001
15	Transmission & Distribution Related	DISTRPLT	73,495,972	44,630,265	4,039,934	151	5,077,129	6,329,293	4,512,084
16	General Related	GENPLT	3,950,627	2,420,137	231,222	7	280,607	355,778	212,433
17	Communications Equip Metscan Adj	PLT3970	(558,752)	(342,446)	(30,859)	(1)	(39,157)	(50,022)	(31,383)
18	Deferred Taxes		85,522,538	52,089,307	4,595,062	171	5,943,757	7,498,880	5,196,052
19	Unamortized Pre-1971 ITC	PLANT	11,170	6,803	599	0	776	979	680
20	Customer Contributions	PLT3803	11,088	7,703	1,165	0	876	503	253
Customer Deposits									
21	Customer Deposits - Firm Customers	CUSTDEP	2,175,434	27,610	159	0	787,831	643,771	150,645
22	Customer Deposits - Marketers	CUSTTR	915,350	10,355	1,392	0	219,031	291,350	96,613
23	Total Customer Deposits		3,090,784	37,964	1,551	0	1,006,862	935,120	247,259
24	Unclaimed Checks	REVCLAIM	278,310	176,895	18,094	1	19,834	21,786	13,532
25	Total Deductions to Net Plant		88,913,890	52,318,672	4,616,470	172	6,972,104	8,457,269	5,457,776
26	Total Rate Base		397,106,628	236,223,289	17,927,107	950	26,204,647	37,824,612	26,756,200

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 107 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVELOPMENT OF RATE BASE CONT-7							
ADDITIONS TO NET PLANT							
1	Cash Working Capital		0	0	0	0	0
2	Purchased Gas		97,827	167,200	281,497	220,748	362,335
3	Other O&M		97,827	167,200	281,497	220,748	362,335
	Total Cash Working Capital						
Materials & Supplies							
4	Stores Expense Undistributed	DISTRPLT	2,293	2,704	5,500	5,323	9,065
5	Truck Stock	DISTRPLT	1,569	1,850	3,763	3,642	6,203
6	Meters Stock	PLT3813	85	1,100	1,737	650	300
7	Inventory-imprest	DISTRPLT	2,347	2,767	5,629	5,448	9,278
8	Mat Management System IC Stock	DISTRPLT	30,364	35,810	72,840	70,495	120,062
9	Appliances & Parts	PLT386	1,117	473	1,906	2,219	4,412
10	Other Inventory Charges	DISTRPLT	388	457	931	901	1,534
11	Total Materials & Supplies		38,162	45,162	92,306	88,677	150,854
12	Total Additions to Net Plant		135,989	212,362	373,803	309,425	513,189
DEDUCTIONS TO NET PLANT							
Deferred Taxes							
13	Intangible Related	INTPLT	64,894	85,054	170,543	144,591	247,254
14	Production Related	PRODPLT	35,370	13,602	45,755	34,821	64,750
15	Transmission & Distribution Related	DISTRPLT	820,643	967,802	1,968,608	1,905,221	3,244,841
16	General Related	GENPLT	38,878	58,952	114,432	90,271	147,911
17	Communications Equip Metscan Adj	PLT3970	(5,908)	(7,761)	(15,555)	(13,156)	(22,503)
18	Deferred Taxes		953,877	1,117,649	2,283,782	2,161,746	3,682,254
19	Unamortized Pre-1971 ITC	PLANT	125	146	298	283	481
20	Customer Contributions	PLT3803	13	204	204	114	53
Customer Deposits							
21	Customer Deposits - Firm Customers	CUSTDEP	83,686	148,410	259,427	73,895	0
22	Customer Deposits - Marketers	CUSTTR	2,830	95,623	136,948	44,556	16,653
23	Total Customer Deposits		86,516	244,033	396,375	118,452	16,653
24	Unclaimed Checks	REVCLAIM	2,411	3,990	6,911	5,672	9,185
25	Total Deductions to Net Plant		1,042,943	1,366,021	2,687,570	2,286,266	3,708,625
26	Total Rate Base		5,061,778	4,783,357	11,279,886	11,145,300	19,899,502

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OPERATING REVENUES-8									
REVENUES									
GAS OPERATING REVENUES									
SALES REVENUES									
1	Firm Sales of Gas		478,651,282	323,429,755	10,830,018	2,726	31,946,429	46,870,369	22,321,850
2	Special Contracts	DISTR	2,500,200	1,322,750	25,361	10	150,823	306,305	239,679
3	Special Contracts Adjustment	DISTR	418,748	221,542	4,248	2	25,227	51,302	40,143
4	Special Contracts - Other	DISTR	1,406,917	744,340	14,271	5	84,759	172,364	134,873
5	Total Sales of Gas		482,977,147	325,718,389	10,873,897	2,743	32,207,039	47,400,340	22,736,546
OTHER OPERATING REVENUES									
6	487-Late Payment Charges	C487R40	236,065	0	0	0	236,065	0	0
7	High Wint Low Ann Rate G40 & T40	C487R41	222,279	0	0	0	0	222,279	0
8	High Wint Med Ann Rate G41 & T41	C487R42	73,676	0	0	0	0	0	73,676
9	High Wint High Ann Rate G42 & T42	C487R43	12,556	0	0	0	0	0	0
10	High Wint Lrg Ann Rate G43 & T43	C487R50	43,052	0	0	0	0	0	0
11	Low Wint Low Ann Rate G50 & T50	C487T51	63,413	0	0	0	0	0	0
12	Low Wint Med Ann Rate G51 & T51	C487R52	23,756	0	0	0	0	0	0
13	Low Wint High Ann Rate G52 & T52	C487R53	10,444	0	0	0	0	0	0
14	Low Wint Lrg Ann Rate G53 & T53		685,241	0	0	0	0	0	0
15	Total Account 487		27,736	20,434	1,226	0	236,065	222,279	73,676
16	487-Return Check Charges	CUST487	6,824,456	3,610,532	69,223	27	411,136	836,078	654,220
17	488-Rental Revenues-W/H & Conv Burn	CUST488	7,690,936	4,068,950	78,012	30	463,337	942,232	737,285
18	493-Rent from Gas Property	PLANT	17,331	10,555	930	0	1,204	1,520	1,055
19	Rent from Gas Property	DEMLNG	625,000	405,467	4,082	1	48,826	78,679	39,442
20	LNG Tank Lease Revenue	DISTRPLT	871,002	528,914	47,877	2	60,169	75,009	53,473
21	I/C Rents		1,513,333	944,936	52,899	3	110,200	155,207	93,970
22	Total Account 493		93,975	57,066	5,166	0	6,492	8,093	5,769
23	903-Cust R&C, Shutoff & Turn-Off	DISTRPLT	16,835,677	8,701,919	206,516	59	1,229,322	2,165,860	1,565,573
24	Total Gas Operating Revenues		499,812,825	334,420,307	11,080,413	2,802	33,436,361	49,566,200	24,302,119

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 109 of 322

		ALLOC		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATING REVENUES-8								
REVENUES								
GAS OPERATING REVENUES								
SALES REVENUES								
1	Firm Sales of Gas			4,903,279	5,775,878	15,241,815	9,011,447	8,317,714
2	Special Contracts		DISTR	50,220	21,286	85,737	99,803	198,426
3	Special Contracts Adjustment		DISTR	8,411	3,565	14,360	16,716	33,234
4	Special Contracts - Other		DISTR	28,260	11,978	48,246	56,161	111,659
5	Total Sales of Gas			4,990,170	5,812,707	15,390,159	9,184,126	8,661,033
OTHER OPERATING REVENUES								
487-Late Payment Charges								
6	High Wint Low Ann Rate G40 & T40		C487R40	0	0	0	0	0
7	High Wint Med Ann Rate G41 & T41		C487R41	0	0	0	0	0
8	High Wint High Ann Rate G42 & T42		C487R42	0	0	0	0	0
9	High Wint Lrg Ann Rate G43 & T43		C487R43	12,566	0	0	0	0
10	Low Wint Low Ann Rate G50 & T50		C487R50	0	43,052	0	0	0
11	Low Wint Med Ann Rate G51 & T51		C487T51	0	0	63,413	0	0
12	Low Wint High Ann Rate G52 & T52		C487R52	0	0	0	0	0
13	Low Wint Lrg Ann Rate G53 & T53		C487R53	0	0	0	23,756	0
14	Total Account 487			12,566	43,052	63,413	23,756	10,444
15	487-Return Check Charges		CUST487	111	382	562	211	10,444
16	488-Rental Revenues-W/H & Conv Burn		CUST488	137,079	58,101	234,026	272,418	541,616
17	882-Revenue Guardian Care & C/S		CUST882	154,484	65,478	263,739	307,006	610,384
493-Rent from Gas Property								
18	Rent from Gas Property		PLANT	194	226	462	439	747
19	LNG Tank Lease Revenue		DEMLNG	8,829	3,395	11,422	8,692	16,164
20	I/C Rents		DISTRPLT	9,725	11,469	23,330	22,579	38,455
21	Total Account 493			18,749	15,091	35,214	31,710	55,365
22	903-Cust R&C, Shutoff & Turn-Off		DISTRPLT	1,049	1,237	2,517	2,436	4,149
23	Total Other Operating Revenues			324,028	183,341	599,471	637,537	1,222,052
24	Total Gas Operating Revenues			5,314,198	5,996,048	15,989,630	9,821,663	9,883,084

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OPERATION & MAINTENANCE EXP-9									
OPERATION & MAINTENANCE EXP									
LIQUEFIED PROPANE GAS PRODUCTION									
Operation Expense									
1	710-Supervision	TLABPO	46,658	30,269	305	0	3,645	5,874	2,944
2	717-LPG Gas Expenses	DEMLPG	476	309	3	0	37	60	30
3	719-Handling Expense	DEMLPG	20,028	12,993	131	0	1,565	2,521	1,264
4	723-Fuel for LPG Gas Process	EREMAIN	0	0	0	0	0	0	0
5	728-Liquefied Petroleum Gas	EREMAIN	0	0	0	0	0	0	0
6	735-Miscellaneous Production Exp	DEMLPG	213,302	138,379	1,393	0	16,664	26,852	13,461
7	Total Operation Expense		280,464	181,951	1,832	0	21,910	35,307	17,699
Maintenance									
8	740-Supervision	TLABPM	11,471	7,441	75	0	896	1,444	724
9	741-Maintenance of Struct & Improv	DEMLPG	12,023	7,800	79	0	939	1,514	759
10	742-Maintenance of Production Equip	DEMLPG	107,427	69,693	702	0	8,392	13,524	6,779
11	Total Maintenance Expense		130,920	84,934	855	0	10,228	16,481	8,262
12	Total Liquefied Propane Gas Prod Exp		411,385	266,885	2,687	0	32,138	51,788	25,962
LIQUEFIED NATURAL GAS PRODUCTION									
Operation Expense									
13	750-Supervision	TLABLO	518,402	336,312	3,386	1	40,499	65,260	32,715
14	754-Liquefaction Expense	DEMLNG	165,884	107,617	1,083	0	12,959	20,883	10,469
15	757-Vaporization Expense	DEMLNG	29,356	19,045	192	0	2,293	3,696	1,853
16	758-Liquefied Natural Gas	EREMAIN	0	0	0	0	0	0	0
17	759-Handling Expense	DEMLNG	26,304	17,065	172	0	2,055	3,311	1,660
18	763-Fuel for Vaporization Expense	EREMAIN	0	0	0	0	0	0	0
19	768-LNG Raw Materials	EREMAIN	0	0	0	0	0	0	0
20	775-Miscellaneous Production Exp	DEMLNG	644,763	418,289	4,211	1	50,370	81,167	40,690
21	777-Lease Expense	DEMLNG	914,499	593,279	5,972	1	71,442	115,123	57,712
22	Total Operation Expense		2,299,208	1,491,606	15,016	3	179,618	289,439	145,098
Maintenance									
23	780-Supervision	TLABLM	7,503	4,867	49	0	586	944	473
24	781-Maintenance of Struct & Improv	DEMLNG	11,060	7,175	72	0	864	1,392	698
25	782-Maintenance of Production Equip	DEMLNG	262,396	170,229	1,714	0	20,499	33,032	16,559
26	Total Maintenance Expense		280,958	182,271	1,835	0	21,949	35,369	17,731
27	Total Liquefied Natural Gas Prod Exp		2,580,167	1,673,877	16,850	3	201,567	324,808	162,828

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 111 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 112 of 322

29-Jun-05 10:27 AM

		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINTENANCE EXP-9							
OPERATION & MAINTENANCE EXP							
LIQUEFIED PROPANE GAS PRODUCTION							
Operation Expense							
1	710-Supervision	TLABPO	659	253	853	649	1,207
2	717-LPG Gas Expenses	DEMLPG	7	3	9	7	12
3	719-Handling Expense	DEMLPG	283	109	366	279	518
4	723-Fuel for LPG Gas Process	EREMAIN	0	0	0	0	0
5	728-Liquefied Petroleum Gas	EREMAIN	0	0	0	0	0
6	735-Miscellaneous Production Exp	DEMLPG	3,013	1,159	3,898	2,967	5,516
7	Total Operation Expense		3,962	1,524	5,125	3,901	7,253
Maintenance							
8	740-Supervision	TLABPM	162	62	210	160	287
9	741-Maintenance of Struct & Improv	DEMLPG	170	65	220	167	311
10	742-Maintenance of Production Equip	DEMLPG	1,518	584	1,963	1,494	2,778
11	Total Maintenance Expense		1,850	711	2,393	1,821	3,386
12	Total Liquefied Propane Gas Prod Exp		5,812	2,235	7,518	5,721	10,639
LIQUEFIED NATURAL GAS PRODUCTION							
Operation Expense							
13	750-Supervision	TLABLO	7,324	2,816	9,474	7,210	13,407
14	754-Liquefaction Expense	DEMLNG	2,343	901	3,032	2,307	4,290
15	757-Vaporization Expense	DEMLNG	415	159	536	408	759
16	758-Liquefied Natural Gas	EREMAIN	0	0	0	0	0
17	759-Handling Expense	DEMLNG	372	143	481	366	680
18	763-Fuel for Vaporization Expense	EREMAIN	0	0	0	0	0
19	768-LNG Raw Materials	EREMAIN	0	0	0	0	0
20	775-Miscellaneous Production Exp	DEMLNG	9,109	3,503	11,783	8,967	16,675
21	777-Lease Expense	DEMLNG	12,919	4,968	16,712	12,719	23,651
22	Total Operation Expense		32,481	12,491	42,018	31,977	59,462
Maintenance							
23	780-Supervision	TLABLM	106	41	137	104	194
24	781-Maintenance of Struct & Improv	DEMLNG	156	60	202	154	286
25	782-Maintenance of Production Equip	DEMLNG	3,707	1,425	4,795	3,649	6,786
26	Total Maintenance Expense		3,969	1,526	5,135	3,908	7,266
27	Total Liquefied Natural Gas Prod Exp		36,450	14,017	47,153	35,885	66,728

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

OPERATION & MAINT EXP CONT-10		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OTHER GAS SUPPLY EXPENSES									
PURCHASED GAS SUPPLY									
Gas Supply Demand Charges									
1	Base Demand Charges	DBASE	6,288,067	3,862,966	300,841	169	168,590	358,374	205,273
2	Remaining Demand Charges	DREMAIN	45,807,642	31,913,800	232,905	0	3,906,613	5,828,405	2,289,761
3	Total Demand Gas Costs		52,095,709	35,776,767	533,746	169	4,075,203	6,186,779	2,495,034
Gas Supply Commodity Charges									
4	Base Commodity Charges	EBASE	80,774,205	49,657,716	3,867,284	2,167	2,158,849	4,619,659	2,632,837
5	Remaining Commodity Charges	EREMAIN	191,688,704	134,395,424	1,128,159	0	14,855,080	23,713,567	10,221,852
6	Total Commodity Gas Costs		272,462,909	184,053,140	4,995,443	2,167	17,013,929	28,333,226	12,854,689
7	Total Gas Supply Expense		324,558,618	219,829,907	5,529,189	2,336	21,089,132	34,520,005	15,349,723
8	Total Production Expense		327,550,169	221,770,668	5,548,726	2,339	21,322,837	34,896,600	15,538,513

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 113 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

OPERATION & MAINT EXP CONT-10												
PURCHASED GAS SUPPLY												
ALLOC												
HIGH WINTER LRG HI ANNUAL G-43 & T-43												
LOW WINTER LOW ANNUAL G-50 & T-50												
LOW WINTER MED ANNUAL G-51 & T-51												
LOW WINTER HIGH ANNUAL G-52 & T-52												
LOW WINTER LRG HI ANNUAL G-53 & T-53												
OTHER GAS SUPPLY EXPENSES												
PURCHASED GAS SUPPLY												
Gas Supply Demand Charges												
1	Base Demand Charges	DBASE		122,834		195,298		638,567		342,813		92,342
2	Remaining Demand Charges	DREMAIN		537,777		192,307		543,192		159,796		203,086
3	Total Demand Gas Costs			660,611		387,605		1,181,759		502,609		295,428
Gas Supply Commodity Charges												
4	Base Commodity Charges	EBASE		1,577,413		2,506,976		8,208,799		4,357,592		1,184,913
5	Remaining Commodity Charges	EREMAIN		1,678,560		945,632		2,525,235		933,008		1,292,187
6	Total Commodity Gas Costs			3,255,973		3,452,608		10,734,034		5,290,600		2,477,100
7	Total Gas Supply Expense			3,916,584		3,840,213		11,915,793		5,793,209		2,772,528
8	Total Production Expense			3,958,846		3,856,465		11,970,464		5,834,815		2,849,896

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OPERATION & MAINT EXP CONT-11									
TRANSMISSION & DISTRIBUTION EXP									
Operation Expense									
1	850-Operation Supervision & Engineer	TLABDO	707,572	408,612	36,648	1	49,599	73,541	44,293
2	851-System Control & Load Dispatch	DISTR	0	0	0	0	0	0	0
3	852-Communication System Exp	DISTR	143,882	76,122	1,459	1	8,668	17,627	13,793
4	857-Measuring & Regulating Stat Exp	PLT369	405,485	214,525	4,113	2	24,428	49,677	38,871
5	874-Mains and Services Exp	PLT36780	3,764,532	2,306,379	196,617	8	255,420	308,431	240,999
6	878-Meter & House Regulator Exp	PLT3813	5,633,560	3,434,111	528,895	0	457,429	539,449	158,439
7	879-Customer Installations Exp	CUST879	5,923,626	3,133,941	60,086	23	356,866	725,715	567,863
8	880-Other Expenses	EXP8519	580,567	335,260	28,941	1	40,341	60,024	37,311
9	881-Rents	DISTR	61,576	32,577	625	0	3,710	7,544	5,903
10	Total Operation Expense		17,220,800	9,941,527	857,384	37	1,196,462	1,782,009	1,107,472
Maintenance									
11	885-Supervision	TLABDM	4,267	2,534	196	0	286	393	292
12	886-Maintenance of Struct & Improv	PLT366	41,025	21,705	416	0	2,472	5,026	3,933
13	887-Maintenance of Mains	PLT367	3,789,693	2,004,967	38,440	15	228,308	464,283	363,296
14	888-Maint of Compressor Station Equip	PLT368	0	0	0	0	0	0	0
15	889-Maint of Meas & Reg Station Equip	PLT369	229,637	121,491	2,329	1	13,834	28,133	22,014
16	892-Maintenance of Services	PLT380	1,687,229	1,224,728	184,286	0	131,854	45,509	35,247
17	893-Maint of Meters and House Regul	PLT3813	436,322	265,974	40,963	0	35,428	41,781	12,271
18	894-Maintenance of Other Equipment	PLT387	403,627	213,542	4,094	2	24,316	49,449	38,693
19	Total Maintenance Expense		6,591,800	3,854,940	270,725	17	436,499	634,573	475,746
20	Total Transmission and Distribution Exp		23,812,600	13,796,468	1,128,110	54	1,632,961	2,416,582	1,583,218

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 115 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINT EXP CONT-11							
TRANSMISSION & DISTRIBUTION EXP							
1	Operation Expense	TLABDO	7,976	11,380	24,758	19,458	31,305
2	850-Operation Supervision & Engineer	DISTR	0	0	0	0	0
3	851-System Control & Load Dispatch	DISTR	2,890	1,225	4,934	5,743	11,419
4	852-Communication System Exp	PLT369	8,145	3,452	13,905	16,186	32,181
5	857-Measuring & Regulating Stat Exp	PLT36780	44,919	43,363	90,410	99,879	178,106
6	874-Mains and Services Exp	PLT3813	11,263	146,403	231,141	86,519	39,911
7	878-Meter & House Regulator Exp	CUST879	118,985	50,432	203,134	236,459	470,123
8	879-Customer Installations Exp	EXP8519	6,811	8,958	19,882	16,270	26,767
9	880-Other Expenses	DISTR	1,237	524	2,112	2,458	4,887
10	Total Operation Expense		202,225	265,737	590,276	482,973	794,699
Maintenance							
11	885-Supervision	TLABDM	56	51	118	122	220
12	886-Maintenance of Struct & Improv	PLT366	824	349	1,407	1,638	3,256
13	887-Maintenance of Mains	PLT367	76,122	32,264	129,957	151,277	300,765
14	888-Maint of Compressor Station Equip	PLT368	0	0	0	0	0
15	889-Maint of Meas & Reg Station Equip	PLT369	4,613	1,955	7,875	9,167	18,225
16	892-Maintenance of Services	PLT380	1,499	26,302	17,041	14,178	6,586
17	893-Maint of Meters and House Regul	PLT3813	872	11,339	17,902	6,701	3,091
18	894-Maintenance of Other Equipment	PLT387	8,107	3,436	13,841	16,112	32,033
19	Total Maintenance Expense		92,093	75,696	188,140	199,194	364,176
20	Total Transmission and Distribution Exp		294,318	341,433	778,415	682,167	1,158,876

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

OPERATION & MAINT EXP CONT-12		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
CUSTOMER ACCOUNTS EXPENSES									
1	901-Supervision	TLABCA	220,334	160,538	21,834	0	16,527	7,790	3,446
2	902-Meter Reading Expenses	CUST902	695,743	540,719	81,154	0	41,749	11,561	3,041
3	903-Cust Records & Collection Exp	CUST903	2,489,985	1,968,879	278,340	0	147,828	41,493	5,488
4	Cust Billing & Payment Proc Exp	CUST903C	2,684,835	1,919,813	278,140	1	262,113	90,209	24,249
5	Collections Expense	DISTRPLT	1,347,741	818,413	74,083	3	93,102	116,064	82,741
6	Service Customer Equipment	EXP903T	910,424	657,021	88,014	0	70,215	34,583	15,700
7	Call Center Expenses	CUST903	67,947	53,727	7,595	0	4,034	1,132	150
8	Postage Adjustment		7,500,932	5,417,854	726,172	4	577,292	283,482	128,327
9	Total Account 903								
9	904-Uncollectible Accounts	C904R3	6,167,180	6,167,180	0	0	0	0	0
10	Resid Heating Rate R-3 & R-4	C904R1	927,984	0	927,984	0	0	0	0
11	Resid Non-Heating Rate R-1 & R-2	C904OL	0	0	0	0	0	0	0
12	Outdoor Lighting	C904R40	848,224	0	0	0	848,224	0	0
13	High Wint Low Ann Rate G40 & T40	C904R41	239,145	0	0	0	0	239,145	0
14	High Wint Med Ann Rate G41 & T41	C904R42	31,648	0	0	0	0	0	31,648
15	High Wint High Ann Rate G42 & T42	C904R43	773	0	0	0	0	0	0
16	High Wint Lrg Ann Rate G43 & T43	C904R50	169,200	0	0	0	0	0	0
17	Low Wint Low Ann Rate G50 & T50	C904R51	89,546	0	0	0	0	0	0
18	Low Wint Med Ann Rate G51 & T51	C904R52	12,730	0	0	0	0	0	0
19	Low Wint High Ann Rate G52 & T52	C904R53	3,397	0	0	0	0	0	0
20	Low Wint Lrg Ann Rate G53 & T53	EXP904S	1,815,897	1,319,104	198,487	0	181,427	51,151	6,769
21	Adjustment Bad Debt Gas Sales	EXP904S	482,572	350,550	52,748	0	48,214	13,593	1,799
22	Adj Uncollectible Prop Rate Increase	CUST882	86,737	45,889	880	0	5,225	10,626	8,315
23	Bad Debt Expense - Cust Service	PLT386	326,029	172,488	3,307	1	19,641	39,943	31,255
24	Bad Debt Expense - Rental	EXP904O	246,232	130,271	2,498	1	14,834	30,166	23,605
25	Adjust Bad Debt Other Revenues		11,447,296	8,185,483	1,185,903	3	1,117,566	384,625	103,390
26	Total Account 904		19,864,305	14,304,593	2,015,064	7	1,753,135	687,458	238,205
SALES EXPENSES									
27	911-Supervision	TLABSA	66,710	42,759	4,292	0	3,683	4,301	3,128
28	912-Demonstrating & Selling Exp	CUST912	159,642	102,717	10,460	0	8,795	10,090	7,315
29	913-Advertising Expense	CUST913	62,710	40,349	4,109	0	3,455	3,964	2,873
30	Advertising Expense	EXP879	126,327	66,834	1,281	0	7,611	15,477	12,110
31	Advertising Guardian Care	PLT386	9,334	4,938	95	0	562	1,144	895
32	Advertising Water Heating Program		198,371	112,122	5,485	1	11,628	20,584	16,878
33	Total Account 913	EXP9123	7,065	4,240	315	0	403	605	458
34	916-Miscellaneous Sales Exp		431,788	261,838	20,551	1	24,509	35,581	25,779
	Total Sales Expenses								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 117 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

OPERATION & MAINT EXP CONT-12		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
CUSTOMER ACCOUNTS EXPENSES							
1	901-Supervision	TLABCA	562	3,271	2,680	1,456	2,229
2	902-Meter Reading Expenses	CUST902	375	8,737	5,255	1,625	1,526
3	903-Cust Records & Collection Exp	CUST903	134	29,467	15,560	2,207	590
4	Cust Billing & Payment Proc Exp	CUST903C	3,335	51,744	31,988	9,964	13,279
5	Collections Expense	DISTRPLT	15,049	17,747	36,100	34,937	59,503
6	Service Customer Equipment	EXP903T	2,585	13,813	11,676	6,575	10,241
7	Call Center Expenses	CUST903	4	804	425	60	16
8	Postage Adjustment		21,106	113,575	95,748	53,744	83,629
	Total Account 903						
9	904-Uncollectible Accounts	C904R3	0	0	0	0	0
10	Resid Heating Rate R-3 & R-4	C904R1	0	0	0	0	0
11	Resid Non-Heating Rate R-1 & R-2	C904OL	0	0	0	0	0
12	Outdoor Lighting	C904R40	0	0	0	0	0
13	High Wint Low Ann Rate G40 & T40	C904R41	0	0	0	0	0
14	High Wint Med Ann Rate G41 & T41	C904R42	0	0	0	0	0
15	High Wint High Ann Rate G42 & T42	C904R43	773	0	0	0	0
16	High Wint Lrg Ann Rate G43 & T43	C904R50	0	169,200	0	0	0
17	Low Wint Low Ann Rate G50 & T50	C904T51	0	0	89,546	0	0
18	Low Wint Med Ann Rate G51 & T51	C904R52	0	0	0	12,730	0
19	Low Wint High Ann Rate G52 & T52	C904R53	0	0	0	0	3,397
20	Low Wint Lrg Ann Rate G53 & T53	EXP904S	165	36,190	19,153	2,723	727
21	Adjustment Bad Debt Gas Sales	EXP904S	44	9,618	5,090	724	193
22	Adj Uncollectible Prop Rate Increase	CUST882	1,742	738	2,974	3,462	6,884
23	Bad Debt Expense - Cust Service	PLT386	6,549	2,776	11,180	13,014	25,875
24	Bad Debt Expense - Rental	EXP904O	4,946	2,096	8,444	9,829	19,542
25	Adjust Bad Debt Other Revenues		14,220	220,619	136,388	42,482	56,618
26	Total Account 904		36,263	346,202	240,072	99,307	144,002
	Total Customer Accounts Expenses						
SALES EXPENSES							
27	911-Supervision	TLABSA	657	744	1,666	1,773	3,707
28	912-Demonstrating & Selling Exp	CUST912	1,536	1,789	3,954	4,196	8,789
29	913-Advertising Expense	CUST913	603	703	1,553	1,648	3,453
30	Advertising Expense	EXP879	2,537	1,076	4,332	5,043	10,026
31	Advertising Guardian Care	PLT386	187	79	320	373	741
32	Advertising Water Heating Program		3,328	1,858	6,205	7,064	14,219
33	Total Account 913	EXP9123	96	72	200	222	454
34	916-Miscellaneous Sales Exp		5,617	4,463	12,026	13,255	27,170
	Total Sales Expenses						

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OPERATION & MAINT EXP CONT-13									
ADMINISTRATIVE & GENERAL EXP									
1	Operation Expense								
2	920-Administrative & General Salaries	REVCLAIM	1,745,741	1,109,602	113,494		124,409	136,656	84,881
3	921-Office Supplies & Expenses	REVCLAIM							
4	LDAC Unbilled Revenues Adj	REVCLAIM	4,283,153	2,722,395	278,457		305,236	335,284	208,256
5	Total Account 921		(373,735)	(237,548)	(24,297)		(26,634)	(29,256)	(18,172)
6	922-Administrative Exp Transferred-Cr	REVCLAIM	3,909,418	2,484,847	254,160		278,602	306,028	190,084
7	923-Outside Services Employed	REVCLAIM	(3,814,124)	(2,424,278)	(247,964)		(271,811)	(298,569)	(185,450)
8	N Source Basis 1 - 50% Gross Pft	BASIS1P	2,564,826	1,562,063	137,574		178,240	224,893	156,104
9	N Basis 1 - 50% O&M Ex Gas Costs	BASIS1OM	2,564,826	1,631,058	168,890		193,057	201,191	117,554
10	Outside Services Nisource Basis 10	BASIS10	1,465,284	1,149,827	173,016		86,594	24,414	3,231
11	Outside Services Nisource Basis 11	BASIS11	748,092	458,488	41,316		52,426	66,972	42,017
12	Outside Services Nisource Basis 13	REVCLAIM	2,687,523	1,708,204	174,722		191,525	210,379	130,673
13	Out Serv Basis 13 - Facilities Mgt	PLANT	284,518	173,281	15,261		19,772	24,948	17,317
14	Out Serv Basis 13 - IT Billing	CUST903	1,599,072	1,264,417	178,750		94,935	26,647	3,524
15	Outside Services Nisource Basis 2	BASIS2	637,309	388,142	34,184		34,289	55,882	38,789
16	Outside Services Nisource Basis 20	BASIS20	2,886,024	1,811,979	174,757		203,132	234,942	150,714
17	Nisource Basis 7 - 50% Deprec Pft	BASIS7P	72,596	44,200	3,891		5,043	6,357	4,434
18	Outside Services Nisource Basis 9	BASIS7OM	72,596	48,614	1,894		4,856	7,346	3,414
19	Outside Services Nisource Co 12	BASIS9	34,525	21,160	1,907		2,419	3,091	1,939
20	Outside Serv Nisource Direct Billed	BASCO12	1,872,647	1,218,153	128,316		129,674	135,312	84,233
21	BSG Communications	REVCLAIM	222,672	141,532	14,476		15,869	17,431	10,827
22	Regulatory External Affairs	REVCLAIM	329,998	209,749	21,454		23,517	25,832	16,045
23	Printing & Inserting	EXP903	204,082	147,407	19,757		15,707	7,713	3,491
24	Finance & Acctg & HR	REVCLAIM	328,029	208,497	21,326		21,326	25,678	15,949
25	Legal Energy Distr East	REVCLAIM	371,587	236,182	24,158		26,481	29,088	18,067
26	Fleet Management	LABOR	556,236	354,818	36,292		39,782	43,699	27,143
27	Nisource Retail Services	EXP879	272,475	166,994	15,048		19,095	24,393	15,304
28	Oth Outside Service - Direct Billed	REVCLAIM	437,393	231,406	4,437		26,351	53,586	41,930
29	Total Out Serv - Direct Billed		1,799,898	1,144,025	117,015		128,269	140,896	87,515
30	Outside Services Employed BSG	REVCLAIM	4,524,370	2,840,609	273,963		318,446	368,315	236,272
31	NIS Gas Dispatching & Control	DISTR	1,350,087	858,122	87,772		96,213	105,684	65,644
32	NIS Gas Acq & Dispat Costs - Sales	GASCOSTS	672,581	355,834	6,822		40,519	82,399	64,476
33	NIS Gas Acq & Dispat Costs - Trans	DISTR	1,491,704	1,010,360	25,413		9,596	15,514	7,549
34	Nisource Payroll & Benefits Adj	REVCLAIM	756,857	481,062	49,205		53,937	59,247	38,800
35	Nisource PBOP & Pension	PENSION	603,831	383,798	39,256		43,032	47,268	25,559
36	Nisource Charitable Contr Adj	REVCLAIM	(8,735)	(5,552)	(568)		(622)	(684)	(742)
37	DSM Implementation Expense Adj	REVCLAIM	(2,418,260)	(1,537,059)	(157,216)		(172,336)	(189,301)	(9,781)
38	Customer Choice Recoveries Adj	REVCLAIM	65,832	41,843	4,280		1,696,366	1,878,625	1,182,567
39	Total Account 923		24,687,388	15,992,874	1,565,020		0	0	0
40	924-Property Insurance	PLANT	0	0	0		0	0	0
41	Injuries & Damages	REVCLAIM	2,728,423	1,734,200	177,381		194,439	213,580	132,584
42	Corporate Insurance Premiums Adj	REVCLAIM	94,997	60,381	6,176		6,770	7,436	4,619
43	Self Insurance Adjustment	REVCLAIM	80,021	50,862	5,202		5,703	6,264	3,891
	Total Account 925		2,903,441	1,845,443	188,759		206,912	227,281	141,171

Bay State Gas Company

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 120 of 322

			LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
	ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43				
OPERATION & MAINT EXP CONT-13						
ADMINISTRATIVE & GENERAL EXP						
1	Operation Expense	REVCLAIM	25,027	43,352	35,578	57,612
2	920-Administrative & General Salaries	REVCLAIM				
3	921-Office Supplies & Expenses	REVCLAIM	61,403	106,364	87,291	141,350
4	LDAC Unbilled Revenues Adj	REVCLAIM	(5,358)	(9,281)	(7,617)	(12,334)
5	Total Account 921		56,045	97,083	79,674	129,016
6	922-Administrative Exp Transferred-Cr	REVCLAIM	(54,679)	(94,716)	(77,732)	(125,871)
7	923-Outside Services Employed					
8	Nisource Basis 1 - 50% Gross Pft	BASIS1P	33,446	68,398	64,899	110,553
9	N Basis 1 - 50% O&M Ex Gas Costs	BASIS1OM	38,635	63,341	48,937	80,654
10	Outside Services Nisource Basis 10	BASIS10	17,273	9,142	1,300	347
11	Outside Services Nisource Basis 11	BASIS11	10,391	20,826	17,617	30,128
12	Outside Services Nisource Basis 12	REVCLAIM	38,528	66,739	54,772	88,692
13	Out Serv Basis 13 - Facilities Mgt	PLANT	3,710	7,587	7,199	12,264
14	Out Serv Basis 13 - IT Billing	CUST903	18,924	9,993	1,417	379
15	Outside Services Nisource Basis 2	BASIS2	8,311	16,996	16,126	27,470
16	Outside Services Nisource Basis 20	BASIS20	39,777	73,259	63,099	106,597
17	Nisource Basis 7 - 50% Deprec Pit	BASIS7P	944	1,932	1,843	3,139
18	Nisource Basis 7 - 50% O&M	BASIS7OM	902	2,504	1,312	928
19	Outside Services Nisource Basis 9	BASIS9	480	961	813	1,390
20	Outside Services Nisource Co 12	BASCO12	25,445	42,445	35,168	58,541
21	Outside Serv Nisource Direct Billed					
22	BSG Communications	REVCLAIM	3,192	5,530	4,538	7,348
23	Regulatory External Affairs	REVCLAIM	4,731	8,195	6,725	10,890
24	Printing & Inserting	EXP903	3,090	2,605	1,462	2,275
25	Finance & Acct'g & HR	REVCLAIM	4,703	8,146	6,885	10,825
26	Regulatory	REVCLAIM	5,327	9,228	7,573	12,263
27	Legal Energy Distr East	REVCLAIM	8,003	13,863	11,377	18,423
28	Fleet Management	LABOR	3,785	7,586	6,417	10,973
29	Nisource Retail Services	EXP879	3,724	14,999	17,460	34,713
30	Oth Outside Service - Direct Billed	REVCLAIM	25,803	44,697	36,882	59,399
31	Total Out Serv - Direct Billed		62,357	114,847	98,919	167,111
32	Outside Services Employed BSG	REVCLAIM	19,355	33,527	27,515	44,555
33	NIS Gas Dispatching & Control	DISTR	5,726	23,064	26,848	53,379
34	NIS Gas Acq & Dispat Costs - Sales	GASCOSTS	17,650	54,766	26,626	12,743
35	NIS Gas Acq & Dispat Costs - Trans	DISTR	1,356	5,462	6,358	12,641
36	Nisource Payroll & Benefits Adj	REVCLAIM	10,850	18,795	15,425	24,977
37	Nisource PBOP & Pension	PENSION	8,656	14,995	12,306	19,927
38	Nisource Charitable Contr Adj	REVCLAIM	(125)	(217)	(178)	(288)
39	DSM Implementation Expense Adj	REVCLAIM	(34,668)	(60,053)	(49,284)	(79,806)
40	Customer Choice Recoveries Adj	REVCLAIM	944	1,635	1,342	2,173
41	Total Account 923		328,866	590,945	480,380	778,494
42	924-Property Insurance	PLANT	0	0	0	0
43	925-Injuries & Damages	REVCLAIM	39,115	67,755	55,606	90,042
44	Corporate Insurance Premiums Adj	REVCLAIM	1,362	2,359	1,936	3,135
45	Self Insurance Adjustment	REVCLAIM	1,147	1,987	1,631	2,641
46	Total Account 925		41,624	72,101	59,172	95,817

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
OPERATION & MAINT EXP CONT-14									
ADMIN & GENERAL EXP CONT									
1	926-Employees Pensions & Benefits	LABOR	9,036,079	5,538,005	499,044	17	633,241	808,945	507,520
2	Employees Pensions & Benefits	LABOR	741,045	454,169	40,926	1	51,932	66,341	41,621
3	Medical & Dental Benefits Adj	PENSION	5,026,451	3,194,839	326,780	10	358,207	393,469	244,396
4	Pension & PBOP Expense		14,803,575	9,187,014	866,751	29	1,043,380	1,268,756	793,538
	Total Account 926								
5	928-Regulatory Commission Expenses	REVCLAIM	359,243	228,337	23,355	1	25,601	28,121	17,467
6	Regulatory Commission Expenses	REVCLAIM	331,700	210,830	21,565	1	23,638	25,965	16,128
7	Rate Case Expense Adj		690,943	439,167	44,920	1	49,240	54,087	33,595
8	Total Account 928	REVCLAIM	0	0	0	0	0	0	0
	929-Duplicate Charges-Cr								
9	930-Miscellaneous General Exp	REVCLAIM	700,677	445,354	45,553	1	49,933	54,849	34,068
10	Miscellaneous General Exp	REVCLAIM	(147,271)	(93,606)	(9,574)	(0)	(10,495)	(11,528)	(7,161)
11	Charitable Contributions Adj	REVCLAIM	310,000	197,038	20,154	1	22,092	24,267	15,073
12	Research & Develop GRU/GTI Adj	REVCLAIM	863,406	548,785	56,132	2	61,530	67,587	41,981
	Total Account 930								
13	931 Rents	REVCLAIM	1,102,613	700,827	71,683	2	78,577	86,312	53,811
14	Rents - General & Admin	PLT397M	4,817,413	2,936,603	452,273	0	391,160	461,298	135,486
15	Miscan Lease Expense	PLT397M	(2,919,051)	(1,779,398)	(274,049)	0	(237,019)	(279,517)	(82,096)
16	Water Heater Lease Expense	PLT386	185,481	98,130	1,881	1	11,174	22,724	17,781
17	Iron Lease Payment Adj	PLT397E	310,104	189,033	29,113	0	25,180	29,694	8,721
18	Total Account 931		3,496,560	2,145,196	289,902	3	269,072	320,510	133,504
19	Total Operation Expense		49,286,348	31,328,651	3,122,173	164	3,457,700	3,960,962	2,390,811
	Maintenance								
20	932 Maintenance of General Plant	GENPLT	2,057,046	1,260,137	120,395	4	146,109	185,249	110,611
21	Maintenance of General Plant	GENPLT	(1,210,869)	(741,773)	(70,870)	(2)	(88,006)	(109,046)	(65,111)
22	ERC Remediation Adj		846,177	518,364	49,525	1	60,103	76,203	45,501
23	Total Account 932		50,132,525	31,847,015	3,171,698	166	3,517,803	4,037,165	2,436,311
	Total Administrative & General Exp								
24	Total Gas O&M Exp Before Other Adj		421,791,388	281,980,582	11,884,149	2,566	28,251,244	42,073,386	19,823,025
	ADJUSTMENTS TO O&M EXPENSES								
25	Total Gas Operation & Maintenance Exp		421,791,388	281,980,582	11,884,149	2,566	28,251,244	42,073,386	19,823,025
26	Payroll - Union Adjustment	OMLAB	1,173,418	734,028	71,196	2	83,520	99,002	60,941
27	Payroll - Non-Union Adjustment	OMLAB	443,840	277,643	26,930	1	31,591	37,447	22,710
28	Incentive Compensation Adjustment	OMLAB	(124,422)	(77,832)	(7,549)	(0)	(6,856)	(10,498)	(6,366)
29	Gain on Sale of Property Adjustment	PLANT	(408,197)	(248,605)	(21,895)	(1)	(28,367)	(35,792)	(24,944)
30	Farm Sales Adjustment	REVCLAIM	15,320	9,737	996	0	1,092	1,199	745
31	Inflation Adjustment	OTHOMINF	1,195,274	740,540	67,679	2	84,572	104,394	104,394
32	Total Adjusted Gas Oper & Maint Exp		424,086,621	283,416,094	12,021,505	2,570	28,414,796	42,289,138	19,930,111

Bay State Gas Company
Page 14-1
of 322
05-27
11-11

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 122 of 322

29-Jun-05 10:27 AM

		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
OPERATION & MAINT EXP CONT-14							
ADMIN & GENERAL EXP CONT							
1	926-Employees Pensions & Benefits	LABOR	95,537	125,505	251,559	212,793	363,912
2	Employees Pensions & Benefits	LABOR	7,835	10,293	20,630	17,451	29,844
3	Medical & Dental Benefits Adj	PENSION	43,548	72,059	124,822	102,440	165,880
4	Pension & PBOP Expense		146,921	207,857	397,011	332,683	559,635
	Total Account 926						
5	928-Regulatory Commission Expenses	REVCLAIM	3,112	5,150	8,921	7,321	11,856
6	Regulatory Commission Expenses	REVCLAIM	2,874	4,755	8,237	6,760	10,947
7	Rate Case Expense Adj		5,986	9,905	17,158	14,081	22,802
8	Total Account 928		0	0	0	0	0
9	929-Duplicate Charges-Cr	REVCLAIM					
10	930-Miscellaneous General Exp	REVCLAIM	6,071	10,045	17,400	14,280	23,123
11	Miscellaneous General Exp	REVCLAIM	(1,276)	(2,111)	(3,657)	(3,001)	(4,860)
12	Charitable Contributions Adj	REVCLAIM	2,686	4,444	7,698	6,318	10,230
13	Research & Develop GRI/GTI Adj	REVCLAIM	7,480	12,378	21,441	17,596	28,494
	Total Account 930						
14	931 Rents	REVCLAIM	9,553	15,807	27,381	22,471	36,388
15	Rents - General & Admin	PLT397M	9,631	125,194	197,655	73,985	34,129
16	Metscan Lease Expense	PLT397M	(5,836)	(75,859)	(119,766)	(44,830)	(20,680)
17	Water Heater Lease Expense	PLT386	3,726	1,579	6,361	7,404	14,721
18	Iron Lease Payment Adj	PLT397E	620	8,059	12,723	4,763	2,197
19	Total Account 931		17,694	74,779	124,353	63,793	66,754
	Total Operation Expense		437,376	701,802	1,268,728	1,005,226	1,612,754
Maintenance							
20	932 Maintenance of General Plant	GENPLT	20,243	30,696	59,583	47,003	77,015
21	Maintenance of General Plant	GENPLT	(11,916)	(18,069)	(35,073)	(27,668)	(45,335)
22	ERC Remediation Adj		8,327	12,627	24,510	19,335	31,681
23	Total Account 932		445,703	714,429	1,293,238	1,024,561	1,644,434
24	Total Administrative & General Exp						
	Total Gas O&M Exp Before Other Adj		4,740,746	5,262,991	14,294,215	7,654,105	5,824,377
ADJUSTMENTS TO O&M EXPENSES							
25	Total Gas Operation & Maintenance Exp		4,740,746	5,262,991	14,294,215	7,654,105	5,824,377
26	Payroll - Union Adjustment	OMLAB	11,074	16,763	31,009	25,081	41,703
27	Payroll - Non-Union Adjustment	OMLAB	4,189	6,340	11,729	9,487	15,774
28	Incentive Compensation Adjustment	OMLAB	(1,174)	(1,777)	(3,288)	(2,659)	(4,422)
29	Gain on Sale of Property Adjustment	PLANT	(4,560)	(5,323)	(10,886)	(10,329)	(17,595)
30	Farm Sales Adjustment	REVCLAIM	133	220	380	312	506
31	Inflation Adjustment	OTHOMINF	12,183	16,483	31,976	26,860	45,678
32	Total Adjusted Gas Oper & Maint Exp		4,762,591	5,295,696	14,355,136	7,702,857	5,906,021

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEPRECIATION & AMORT EXPENSE-15									
DEPRECIATION & AMORTIZATION EXP									
INTANGIBLE PLANT AMORTIZATION									
1	301 Organization								
2	Adj Organization	PLT301	112,508	68,521	6,035	0	7,819	9,865	6,848
3	Total Account 301	PLT301	(99,952)	(60,874)	(5,361)	(0)	(6,946)	(8,764)	(6,083)
			12,556	7,647	673	0	873	1,101	764
4	303 Misc. Intangible Plant								
5	Misc. Intangible Plant	PLT303	14,924,241	9,146,724	824,236	28	1,045,879	1,336,077	838,234
6	Adj Nipco Amortization	PLT303	(11,027,252)	(6,758,349)	(609,013)	(21)	(772,781)	(987,203)	(619,356)
7	Total Account 303		3,896,989	2,388,375	215,223	7	273,098	348,874	218,878
	Total Intangible Plant Amortization		3,909,545	2,396,022	215,896	7	273,971	349,975	219,642
PRODUCTION PLANT DEPRECIATION									
8	305 Structures & Improvements	PLT305	72,490	47,028	473	0	5,663	9,126	4,575
9	311 L.P. Gas Equipment	PLT311	80,279	52,081	524	0	6,272	10,106	5,066
10	320 Other Equipment	PLT320	61,116	39,649	399	0	4,774	7,694	3,857
11	321 L.N.G. Equipment	PLT321	556,953	361,322	3,637	1	43,510	70,113	35,148
12	Total Production Plant Depreciation		770,838	500,079	5,034	1	60,219	97,038	48,646
DISTRIBUTION PLANT DEPRECIATION									
13	365 Right of Way	PLT365	1,723	912	17	0	104	211	165
14	366 Structures & Improvements	PLT366	65,367	34,583	663	0	3,938	8,008	6,266
15	367 Gas Mains								
16	Gas Mains - Bare Steel	PLT367BS	121,077	64,057	1,228	0	7,294	14,833	11,607
17	Gas Mains - Joint Clamping	PLT367JC	1,285,330	680,014	13,038	5	77,434	157,468	123,217
18	Gas Mains - Cast Iron	PLT367CI	137,152	72,561	1,391	1	8,263	16,803	13,148
19	Gas Mains - Cathodic Protection	PLT367CP	624,734	330,520	6,337	2	37,637	76,537	59,890
20	Gas Mains - Coated Steel	PLT367CS	3,696,753	1,955,796	37,498	14	222,709	452,897	354,386
21	Gas Mains - Plastic	PLT367P	2,735,845	1,447,420	27,751	11	164,820	335,174	262,269
22	Adj Gas Mains - Plastic		22,864	12,096	232	0	1,377	2,801	2,192
23	Total Account 367		8,623,755	4,562,465	87,474	34	519,534	1,056,514	826,709
24	368 Compressor Station Equipment	PLT368	16,821	8,899	171	0	1,013	2,061	1,613
25	369 Meas. & Reg. Station Equipment	PLT369	334,825	177,142	3,396	1	20,171	41,020	32,098
26	380 Gas Services	PLT380	11,620,315	8,434,972	1,269,221	0	908,105	313,429	242,751
27	381 Gas Meters	PLT381	986,673	601,457	92,632	0	80,115	94,480	27,749
28	382 Meter Installations	PLT382	1,509,627	920,240	141,728	0	122,577	144,556	42,467
29	383 Gas Regulators	PLT383	552,649	336,884	51,884	0	44,874	52,920	15,643
30	386 Other Property on Cust's Premises								
31	Gas Water Heaters	PLT3860	992,169	524,915	10,064	4	59,773	121,553	95,113
32	Cascade Diamond Boilers	PLT3862	40,224	21,281	408	0	2,423	4,928	3,356
33	Conversion Burners	PLT3863	325,942	172,442	3,306	1	19,636	39,932	31,540
34	Total Account 386		1,358,335	718,638	13,778	5	81,832	166,412	130,011
35	387 Other Equipment	PLT387	256,386	135,643	2,601	1	15,446	31,410	24,271
36	Total Distribution Plant Depreciation		25,326,476	15,931,835	1,663,565	42	1,797,710	1,911,022	1,391,445

Bay State Gas Company

DEPRECIATION & AMORT EXPENSE-15							
		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEPRECIATION & AMORTIZATION EXP							
INTANGIBLE PLANT AMORTIZATION							
1	301 Organization						
2	Adj Organization	PLT301	1,257	1,467	3,000	2,847	4,850
3	Total Account 301	PLT301	(1,117)	(1,303)	(2,665)	(2,529)	(4,308)
4	303 Misc. Intangible Plant						
5	Misc. Intangible Plant	PLT303	157,792	207,288	415,482	351,454	601,046
6	Adj NipSCO Amortization	PLT303	(116,590)	(153,162)	(306,992)	(259,683)	(444,102)
7	Total Account 303		41,202	54,127	108,490	91,771	156,944
	Total Intangible Plant Amortization		41,343	54,290	108,825	92,089	157,485
PRODUCTION PLANT DEPRECIATION							
8	305 Structures & Improvements	PLT305	1,024	394	1,325	1,008	1,875
9	311 L.P. Gas Equipment	PLT311	1,134	436	1,467	1,117	2,076
10	320 Other Equipment	PLT320	863	332	1,117	850	1,581
11	321 L.N.G. Equipment	PLT321	7,868	3,026	10,178	7,746	14,404
12	Total Production Plant Depreciation		10,890	4,188	14,087	10,721	19,935
DISTRIBUTION PLANT DEPRECIATION							
13	365 Right of Way	PLT365	35	15	59	69	137
14	366 Structures & Improvements	PLT366	1,313	557	2,242	2,609	5,188
15	367 Gas Mains						
16	Gas Mains - Bare Steel	PLT367BS	2,432	1,031	4,152	4,833	9,609
17	Gas Mains - Joint Clamping	PLT367JC	25,818	10,943	44,077	51,308	102,009
18	Gas Mains - Cast Iron	PLT367CI	2,755	1,168	4,703	5,475	10,885
19	Gas Mains - Cathodic Protection	PLT367CP	12,549	5,319	21,423	24,938	49,581
20	Gas Mains - Coated Steel	PLT367CS	74,255	31,473	126,770	147,567	293,389
21	Gas Mains - Plastic	PLT367P	54,953	23,292	93,818	109,209	217,128
22	Adj Gas Mains - Plastic	PLT367P	459	195	784	913	1,815
23	Total Account 367		173,221	73,419	295,727	344,242	684,416
24	368 Compressor Station Equipment	PLT368	338	143	577	671	1,335
25	369 Meas. & Reg. Station Equipment	PLT369	6,725	2,851	11,482	13,366	26,573
26	380 Gas Services	PLT380	10,327	181,145	117,362	97,644	45,359
27	381 Gas Meters	PLT381	1,973	25,641	40,482	15,153	6,990
28	382 Meter Installations	PLT382	3,018	39,232	61,939	23,185	10,695
29	383 Gas Regulators	PLT383	1,105	14,362	22,675	8,487	3,915
30	386 Other Property on Cust's Premises						
31	Gas Water Heaters	PLT386G	19,929	8,447	34,024	39,605	78,743
32	Cascade Diamond Boilers	PLT386D	808	342	1,379	1,606	3,192
33	Conversion Burners	PLT386B	6,547	2,775	11,177	13,011	25,868
34	Total Account 386		27,284	11,564	46,580	54,222	107,803
35	387 Other Equipment	PLT387	5,150	2,183	8,792	10,234	20,348
36	Total Distribution Plant Depreciation		230,488	351,112	607,917	569,883	912,759

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEPREC & AMORT EXP CONT-16		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
TRANSMISSION PLANT DEPRECIATION									
1	379 Other Equipment	PLT379	13,471	7,127	137	0	812	1,650	1,291
2	Total Transmission Plant Depreciation		13,471	7,127	137	0	812	1,650	1,291
GENERAL PLANT DEPRECIATION									
3	390 Structures & Improvements	PLT390	153,380	94,003	8,471	0	10,749	13,731	8,615
4	Total General Plant Depreciation		153,380	94,003	8,471	0	10,749	13,731	8,615
GENERAL PLT DEPRECIATION (Equip)									
5	391 Office Equipment	PLT391OE	307,881	188,693	17,004	1	21,576	27,563	17,292
6	Office Equipment			617,043	55,603	2	70,556	90,132	56,548
7	Office IT Equipment	PLT391IT	1,006,797	805,736	72,607	2	92,132	117,695	73,840
8	Total Account 391		1,314,678	200,919	18,105	1	22,974	29,349	18,413
9	392 Transportation Equipment	PLT392	327,830	3,530	318	0	404	516	323
10	393 Stores Equipment	PLT393	5,759	49,946	4,501	0	5,711	7,296	4,577
11	394 Tools, Shop & Garage Equipment	PLT394	81,494	30,413	2,741	0	3,478	4,443	2,787
12	396 Power Operated Equipment	PLT396	49,624	308,413	27,792	1	35,265	45,050	28,264
13	397 Communication Equipment	PLT397O	503,221	97,849	15,070	0	13,034	15,371	4,514
14	Communications Equip Other	PLT397E	160,519	97,071	14,950	0	12,930	15,249	4,479
15	Communications Equip ERT/ITRON	PLT397M	159,243	503,333	57,812	1	61,229	75,670	37,257
16	Communications Equip Metscan		822,983	773	70	0	88	113	71
17	Total Account 397	PLT398	1,261	1,594,650	156,154	4	186,015	235,080	137,269
18	398 Miscellaneous Equipment		2,603,629	(40,944)	(3,912)	(0)	(4,747)	(6,019)	(3,594)
19	Tot Gen Plt Depreciation (Equip)	GENPLT	(66,837)	1,611,336	248,165	0	214,632	253,117	74,342
20	Adj Depreciation Exp Alloc Mgt. Fee	PLT397M	2,643,350	22,094,108	2,293,510	54	2,539,360	2,855,594	1,836,355
21	Adj Amortization of Metscan Devices		35,353,853						
22	Total Depreciation & Amortization Exp								

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEPREC & AMORT EXP CONT-16							
TRANSMISSION PLANT DEPRECIATION							
1	379 Other Equipment	PLT379	271	115	462	538	1,069
2	Total Transmission Plant Depreciation		271	115	462	538	1,069
GENERAL PLANT DEPRECIATION							
3	390 Structures & Improvements	PLT390	1,622	2,130	4,270	3,612	6,177
4	Total General Plant Depreciation		1,622	2,130	4,270	3,612	6,177
GENERAL PLT DEPRECIATION (Equip)							
5	391 Office Equipment	PLT391OE	3,255	4,276	8,571	7,250	12,399
6	Office Equipment	PLT391IT	10,645	13,984	28,029	23,709	40,547
7	Office IT Equipment		13,900	18,260	36,600	30,960	52,946
8	Total Account 391		3,466	4,553	9,127	7,720	13,203
9	392 Transportation Equipment	PLT392	61	80	160	136	232
10	393 Stores Equipment	PLT393	862	1,132	2,269	1,919	3,282
11	394 Tools, Shop & Garage Equipment	PLT394	525	689	1,362	1,169	1,999
12	396 Power Operated Equipment	PLT396	5,320	6,989	14,009	11,850	20,266
13	397 Communication Equipment	PLT397O	321	4,172	6,586	2,465	1,137
14	Communications Equip ERT/ITRON	PLT397E	318	4,138	6,534	2,446	1,128
15	Communications Equip Metscan	PLT397M	5,960	15,299	27,129	16,761	22,532
16	Total Account 397		13	18	35	30	51
17	398 Miscellaneous Equipment	PLT398	24,786	40,031	76,701	58,694	94,244
18	Tot Gen Plt Depreciation (Equip)		(658)	(997)	(1,936)	(1,527)	(2,502)
19	Adj Depreciation Exp Alloc Mgt. Fee	GENPLT	5,285	68,695	108,455	40,596	18,727
20	Adj Amortization of Metscan Devices	PLT397M	314,026	519,564	918,780	774,605	1,207,894
	Total Depreciation & Amortization Exp						

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

STATE & FED TAXES & OTH EXP-17		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
TAXES OTHER THAN INCOME									
1	Payroll Taxes	LABOR	2,481,823	1,521,052	137,066	5	173,924	222,183	139,394
2	Payroll Tax Adjustment	LABOR	91,114	55,842	5,032	0	6,385	8,157	5,118
3	Total Payroll Taxes		2,572,937	1,576,894	142,098	5	180,309	230,339	144,511
Plant Related Taxes									
4	Property Taxes	PLANT	7,071,744	4,306,923	379,318	14	491,444	620,076	430,409
5	Property Tax Adjustment	PLANT	310,740	189,233	16,666	1	21,592	27,244	18,911
6	Total Property Taxes		7,382,454	4,496,156	395,984	15	513,036	647,320	449,320
Other Taxes									
7	Other Taxes	PLANT	65,931	40,154	3,536	0	4,582	5,781	4,013
8	Other Tax Adjustment	PLANT	0	0	0	0	0	0	0
9	Total Other Taxes		65,931	40,154	3,536	0	4,582	5,781	4,013
10	Total Plant Related Taxes		7,448,385	4,536,310	399,521	15	517,618	653,101	453,333
Revenue Related Taxes									
11	Other State Taxes	REVCLAIM	45,845	29,139	2,980	0	3,267	3,589	2,229
12	Total Revenue Related Taxes		45,845	29,139	2,980	0	3,267	3,589	2,229
13	Total Taxes Other Than Income		10,067,167	6,142,343	544,599	20	701,195	887,029	600,073
FEDERAL & STATE INCOME TAXES									
14	State Tax @ 6.50%		1,229,484	1,042,243	(278,860)	8	65,686	159,542	75,213
15	Federal Tax @ 35.00%		6,189,979	5,247,293	(1,403,955)	43	330,705	803,235	378,668
16	Amortization of ITC		(373,740)	(227,620)	(20,047)	(1)	(25,973)	(32,771)	(22,747)
17	Deferred Tax Flowback		263,604	160,543	14,139	1	18,319	23,114	16,044
18	Total Income Tax Expense		7,309,327	6,222,459	(1,688,723)	51	388,738	953,120	447,178
19	INTEREST ON CUSTOMER DEPOSITS	TOTCDEP	72,506	891	36	0	23,620	21,937	5,800
20	Total Expenses		476,889,474	317,875,895	13,170,928	2,695	32,067,708	46,986,819	22,829,623
21	Net Operating Income		22,923,351	16,544,412	(2,090,515)	107	1,368,653	2,579,381	1,472,996

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 127 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 128 of 322

STATE & FED TAXES & OTH EXP-17		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
TAXES OTHER THAN INCOME							
Payroll Taxes							
1	Payroll Taxes	LABOR	26,240	34,471	69,092	58,445	99,951
2	Payroll Tax Adjustment	LABOR	963	1,266	2,537	2,146	3,669
3	Total Payroll Taxes		27,203	35,736	71,629	60,591	103,620
Plant Related Taxes							
Property Taxes							
4	Property Taxes	PLANT	78,998	92,217	188,588	178,939	304,818
5	Property Tax Adjustment	PLANT	3,471	4,052	8,286	7,862	13,393
6	Total Property Taxes		82,468	96,269	196,874	186,801	318,211
Other Taxes							
7	Other Taxes	PLANT	737	860	1,758	1,668	2,842
8	Other Tax Adjustment	PLANT	0	0	0	0	0
9	Total Other Taxes		737	860	1,758	1,668	2,842
10	Total Plant Related Taxes		83,205	97,129	198,632	188,469	321,053
Revenue Related Taxes							
11	Other State Taxes	REVCLAIM	397	657	1,138	934	1,513
12	Total Revenue Related Taxes		397	657	1,138	934	1,513
13	Total Taxes Other Than Income		110,806	133,522	271,399	249,994	426,186
FEDERAL & STATE INCOME TAXES							
14	State Tax @ 6.50%		(1,268)	(6,161)	7,380	50,296	115,405
15	Federal Tax @ 35.00%		(6,386)	(31,018)	37,156	253,222	581,018
16	Amortization of ITC		(4,175)	(4,874)	(9,967)	(9,457)	(16,110)
17	Deferred Tax Flowback		2,945	3,437	7,030	6,670	11,362
18	Total Income Tax Expense		(8,885)	(38,616)	41,599	300,731	691,676
19	INTEREST ON CUSTOMER DEPOSITS	TOTCDEP	2,030	5,725	9,298	2,779	391
20	Total Expenses		5,180,568	5,915,891	15,596,212	9,030,966	8,232,167
21	Net Operating Income		133,631	80,156	393,417	790,697	1,650,917

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVELOPMENT OF INCOME TAXES-18								
FEDERAL & STATE TAX CALCULATION								
1 Operating Revenues		499,812,825	334,420,307	11,080,413	2,802	33,436,361	49,566,200	24,302,119
Operating Expenses								
2 Operation & Maintenance Expense		424,086,621	283,416,094	12,021,505	2,570	28,414,796	42,269,138	19,940,217
3 Depreciation & Amortization Expense		35,353,853	22,094,108	2,293,510	54	2,539,360	2,855,594	1,836,355
4 Taxes Other Than Income		10,067,167	6,142,343	544,599	20	701,195	887,029	600,073
Interest Expense								
5 Interest on Customer Deposits		72,506	891	36	0	23,620	21,937	5,800
6 Interest Expense		11,317,539	6,732,364	510,923	27	746,832	1,078,001	762,552
7 Book Taxable Income		18,915,139	16,034,508	(4,290,161)	131	1,010,558	2,454,500	1,157,122
Adjustments to Taxable Income								
10 Deductions	PLANT	0	0	0	0	0	0	0
11 Taxable Basis State Franchise Tax		18,915,139	16,034,508	(4,290,161)	131	1,010,558	2,454,500	1,157,122
Less:								
12 State Tax @ 6.50%		1,229,484	1,042,243	(278,860)	8	65,886	159,542	75,213
13 Federal Taxable Basis		17,685,655	14,992,265	(4,011,300)	122	944,872	2,294,957	1,081,909
14 Federal Income Tax @ 35.00%		6,189,979	5,247,293	(1,403,955)	43	330,705	803,235	378,668
15 Federal Income Tax Liability		6,189,979	5,247,293	(1,403,955)	43	330,705	803,235	378,668
16 Amortization of ITC	PLANT	(373,740)	(227,620)	(20,047)	(1)	(25,973)	(32,771)	(22,747)
17 Deferred Tax Flowback	PLANT	263,604	160,543	14,139	1	18,319	23,114	16,044
18 Total Income Tax Expense		7,309,327	6,222,459	(1,688,723)	51	388,738	953,120	447,178
19 Net Income After Tax		22,923,351	16,544,412	(2,090,515)	107	1,368,653	2,579,381	1,472,496

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 129 of 322

Effective State Tax Rate 6.50%
Federal Tax Rate - Current 35.00%
1 - Incremental Tax Rate 0.60775
Incremental Tax Rate 0.39225
Effective Incremental Federal Rate 0.32725
Factor for Taxable Basis 1.64541
Interest Expense Percentage 2.85%
Purchased Gas Working Capital % 11.564%
Other O&M Working Capital % 0.00%

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVELOPMENT OF INCOME TAXES-18						
FEDERAL & STATE TAX CALCULATION						
	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Operating Revenues	5,314,198	5,996,048	15,989,630	9,821,663	9,883,084
2	Operating Expenses					
3	Operation & Maintenance Expense	4,762,591	5,295,696	14,355,136	7,702,857	5,906,021
4	Depreciation & Amortization Expense	314,026	519,564	918,780	774,605	1,207,894
5	Taxes Other Than Income	110,806	133,522	271,399	249,994	426,186
6	Interest Expense					
7	Interest on Customer Deposits	2,030	5,725	9,298	2,779	391
8	Interest Expense	144,261	136,326	321,477	317,641	567,136
9	Book Taxable Income	(19,515)	(94,785)	113,539	773,787	1,775,457
10	Adjustments to Taxable Income					
11	Deductions	0	0	0	0	0
12	Taxable Basis State Franchise Tax	(19,515)	(94,785)	113,539	773,787	1,775,457
13	Less:					
14	State Tax @ 6.50%	(1,268)	(6,161)	7,380	50,296	115,405
15	Federal Taxable Basis	(18,247)	(88,624)	106,159	723,491	1,660,052
16	Federal Income Tax @ 35.00%	(6,386)	(31,018)	37,156	253,222	581,018
17	Federal Income Tax Liability	(6,386)	(31,018)	37,156	253,222	581,018
18	Amortization of ITC	(4,175)	(4,874)	(9,967)	(9,457)	(16,110)
19	Deferred Tax Flowback	2,945	3,437	7,030	6,670	11,362
20	Total Income Tax Expense	(8,885)	(38,616)	41,599	300,731	691,676
21	Net Income After Tax	133,631	80,156	393,417	790,697	1,650,917

Effective State Tax Rate
Federal Tax Rate - Current
1 - Incremental Tax Rate
Incremental Tax Rate
Effective Incremental Federal Rate
Factor for Taxable Basis
Interest Expense Percentage
Purchased Gas Working Capital %
Other O&M Working Capital %

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVELOPMENT OF LABOR ALLOC-19									
DEVELOPMENT OF LABOR ALLOCATOR									
LIQUEFIED PROPANE PROD LABOR									
1	Operation Labor								
2	710-Supervision	LABPO	40,830	26,488	267		3,190	5,140	2,577
3	717-LPG Gas Expenses	EXP717	344	223	2		27	43	22
4	719-Handling Expense	EXP719	15,490	10,049	101		1,210	1,950	978
5	735-Miscellaneous Production Exp	EXP735	121,637	78,912	794		9,503	15,312	7,676
6	Total Operation Labor		178,302	115,673	1,164		13,929	22,446	11,252
7	Maintenance Labor								
8	740-Supervision	LABPM	9,759	6,331	64		762	1,229	616
9	741-Maintenance of Struct & Improv	EXP741	4,376	2,839	29		342	551	276
10	742-Maintenance of Production Equip	EXP742	43,452	28,189	284		3,395	5,470	2,742
11	Total Maintenance Labor		57,587	37,359	376		4,499	7,249	3,634
12	Total Liquefied Propane Prod Labor		235,888	153,032	1,541		18,428	29,695	14,886
LIQUEFIED NATURAL GAS LABOR									
13	Operation Labor								
14	750-Supervision	LABLO	453,645	294,301	2,963	1	35,440	57,108	28,628
15	754-Liquefaction Expense	EXP754	130,121	84,416	850		10,165	16,380	8,212
16	757-Vaporization Expense	EXP757	23,027	14,939	150		1,799	2,899	1,453
17	759-Handling Expense	EXP759	20,344	13,198	133		1,589	2,561	1,284
18	775-Miscellaneous Production Exp	EXP775	367,683	238,533	2,401		28,724	46,286	23,204
19	777-Lease Expense	EXP777	0	0	0		0	0	0
20	Total Operation Labor		994,820	645,387	6,497	1	77,717	125,234	62,781
21	Maintenance Labor								
22	780-Supervision	LABLM	6,383	4,141	42		499	804	403
23	781-Maintenance of Struct & Improv	EXP781	4,025	2,611	26		314	507	254
24	782-Maintenance of Production Equip	EXP782	106,134	68,854	693		8,291	13,361	6,698
25	Total Maintenance Labor		116,542	75,607	761		9,105	14,671	7,355
26	Total Liquefied Natural Gas Prod Labor		1,111,363	720,994	7,258	1	86,822	139,905	70,135
27	Total Production Labor		1,347,251	874,026	8,799	2	105,250	169,600	85,022

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 131 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVELOPMENT OF LABOR ALLOC-19								
DEVELOPMENT OF LABOR ALLOCATOR								
LIQUEFIED PROPANE PROD LABOR								
	Operation Labor			577	222	746	568	1,056
1	710-Supervision	LABPO		5	2	6	5	9
2	717-LPG Gas Expenses	EXP717		219	84	283	215	401
3	719-Handling Expense	EXP719		1,718	661	2,223	1,692	3,146
4	735-Miscellaneous Production Exp	EXP735		2,519	969	3,258	2,480	4,611
5	Total Operation Labor							
6	740-Supervision	LABPM		138	53	178	136	252
7	741-Maintenance of Struct & Improv	EXP741		62	24	80	61	113
8	742-Maintenance of Production Equip	EXP742		614	236	794	604	1,124
9	Total Maintenance Labor			814	313	1,052	801	1,489
10	Total Liquefied Propane Prod Labor			3,332	1,281	4,311	3,281	6,101
LIQUEFIED NATURAL GAS LABOR								
	Operation Labor			6,409	2,464	8,290	6,309	11,732
11	750-Supervision	LABLO		1,838	707	2,378	1,810	3,365
12	754-Liquefaction Expense	EXP754		325	125	421	320	596
13	757-Vaporization Expense	EXP757		287	111	372	283	526
14	759-Handling Expense	EXP759		5,194	1,997	6,719	5,114	9,509
15	775-Miscellaneous Production Exp	EXP775		0	0	0	0	0
16	777-Lease Expense	EXP777		14,054	5,404	18,180	13,836	25,728
17	Total Operation Labor							
	Maintenance Labor							
18	780-Supervision	LABLM		90	35	117	89	165
19	781-Maintenance of Struct & Improv	EXP781		57	22	74	56	104
20	782-Maintenance of Production Equip	EXP782		1,499	577	1,940	1,476	2,745
21	Total Maintenance Labor			1,646	633	2,130	1,621	3,014
22	Total Liquefied Natural Gas Prod Labor			15,700	6,038	20,310	15,457	28,742
23	Total Production Labor			19,033	7,319	24,621	18,737	34,843

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVEL OF LABOR ALLOC CONT-20									
TRANSMISSION & DISTRIB LABOR									
Operation Labor									
1	850-Operation Supervision & Engineer	LABDO	516,364	298,192	26,745	1	36,196	53,688	32,323
2	851-System Control & Load Dispatch	EXP851	0	0	0	0	0	0	0
3	852-Communication System Exp	EXP852	0	0	0	0	0	0	0
4	857-Measuring & Regulating Stal Exp	EXP857	247,504	130,944	2,511	1	14,911	30,322	23,727
5	874-Mains and Services Exp	EXP874	1,872,344	1,147,111	97,790	4	127,037	153,403	119,864
6	878-Meter & House Regulator Exp	EXP878	3,903,793	2,379,678	366,499	0	316,977	373,813	109,791
7	879-Customer Installations Exp	EXP879	3,699,668	1,957,338	37,527	14	222,885	453,254	354,665
8	880-Other Expenses	EXP880	367,296	212,102	18,310	1	25,522	37,974	23,605
9	881-Rents	EXP881	0	0	0	0	0	0	0
10	Total Operation Labor		10,606,968	6,125,365	549,382	21	743,527	1,102,434	663,975
Maintenance Labor									
11	885-Supervision	LABDM	4,263	2,531	196	0	286	392	292
12	886-Maintenance of Struct & Improv	EXP886	21,780	11,523	221	0	1,312	2,688	2,088
13	887-Maintenance of Mains	EXP887	2,193,154	1,160,305	22,246	9	132,125	268,688	210,245
14	888-Maint of Compressor Station Equip	EXP888	0	0	0	0	0	0	0
15	889-Maint of Meas & Reg Station Equip	EXP889	179,726	95,085	1,823	1	10,828	22,019	17,229
16	892-Maintenance of Services	EXP892	1,261,488	915,691	137,785	0	98,583	34,026	26,353
17	893-Maint of Meters and House Regul	EXP893	312,751	190,647	29,362	0	25,395	29,948	8,796
18	894-Maintenance of Other Equipment	EXP894	256,706	135,812	2,604	1	15,465	31,450	24,609
19	Total Maintenance Labor		4,229,868	2,511,595	194,237	10	283,994	389,190	289,611
20	Total Transmission and Distribution Labor		14,836,836	8,636,961	743,619	32	1,027,521	1,491,624	953,587

DEVEL OF LABOR ALLOC CONT-20		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
TRANSMISSION & DISTRIB LABOR							
Operation Labor							
1	850-Operation Supervision & Engineer	LABDO	5,820	8,305	18,068	14,200	22,845
2	851-System Control & Load Dispatch	EXP851	0	0	0	0	0
3	852-Communication System Exp	EXP852	0	0	0	0	0
4	857-Measuring & Regulating Stat Exp	EXP857	4,971	2,107	8,487	9,880	19,643
5	874-Mains and Services Exp	EXP874	22,341	21,567	44,967	49,676	88,583
6	878-Meter & House Regulator Exp	EXP878	7,805	101,451	160,170	59,954	27,657
7	879-Customer Installations Exp	EXP879	74,313	31,498	126,870	147,683	293,621
8	880-Other Expenses	EXP880	4,309	5,667	12,578	10,293	16,934
9	881-Rents	EXP881	0	0	0	0	0
10	Total Operation Labor		119,560	170,594	371,140	291,686	468,283
Maintenance Labor							
11	885-Supervision	LABDM	55	51	118	122	219
12	886-Maintenance of Struct & Improv	EXP886	437	185	747	869	1,729
13	887-Maintenance of Mains	EXP887	44,053	18,672	75,208	87,546	174,058
14	888-Maint of Compressor Station Equip	EXP888	0	0	0	0	0
15	889-Maint of Meas & Reg Station Equip	EXP889	3,610	1,530	6,163	7,174	14,264
16	892-Maintenance of Services	EXP892	1,121	19,665	12,741	10,600	4,924
17	893-Maint of Meters and House Regul	EXP893	625	8,128	12,832	4,803	2,216
18	894-Maintenance of Other Equipment	EXP894	5,156	2,186	8,803	10,247	20,373
19	Total Maintenance Labor		55,058	50,416	116,611	121,363	217,782
20	Total Transmission and Distribution Labor		174,618	221,010	487,751	413,049	687,066

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEVEL OF LABOR ALLOC CONT-21									
CUSTOMER ACCOUNTS LABOR									
1	901-Supervision	LABCA	221,538	161,416	21,953	0	16,617	7,832	3,465
2	902-Meter Reading Expenses	EXP902	647,138	502,943	75,485	0	38,833	10,753	2,829
3	903-Cust Records & Collection Exp	EXP903	4,970,313	3,590,011	481,181	3	382,529	187,843	85,033
4	Total Customer Accounts Labor		5,838,988	4,254,370	578,619	3	437,979	206,428	91,327
SALES EXPENSES LABOR									
5	911-Supervision	LABSA	80,141	51,368	5,156	0	4,424	5,167	3,758
6	912-Demonstrating & Selling Exp	EXP912	117,959	75,897	7,729	0	6,499	7,456	5,405
7	913-Advertising Exp	EXP913	0	0	0	0	0	0	0
8	916-Miscellaneous Sales Exp	EXP916	7,065	4,240	315	0	403	605	458
9	Total Sales Expenses Labor		205,166	131,506	13,199	0	11,326	13,228	9,620

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 135 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

				LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43					
DEVEL OF LABOR ALLOC CONT-21							
CUSTOMER ACCOUNTS LABOR							
1	LABCA	565	3,288	2,695	1,464	2,241	
2	EXP902	349	8,127	4,888	1,511	1,419	
3	903-Cust Records & Collection Exp	13,985	75,258	63,445	35,612	55,415	
4	Total Customer Accounts Labor	14,900	86,673	71,028	38,587	59,075	
SALES EXPENSES LABOR							
5	LABSA	789	894	2,001	2,130	4,454	
6	EXP912	1,135	1,322	2,922	3,101	6,494	
7	913-Advertising Exp	0	0	0	0	0	
8	916-Miscellaneous Sales Exp	96	72	201	222	454	
9	Total Sales Expenses Labor	2,020	2,288	5,124	5,453	11,402	

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

DEVEL OF LABOR ALLOC CONT-22		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
ADMINISTRATIVE & GENERAL LABOR									
1	Operation Labor	EXP920	1,036,667	658,911	67,396	2	73,877	81,150	50,405
2	920-Administrative & General Salaries	EXP921		3,615	370	0	405	445	277
3	921-Office Supplies & Expenses	EXP922	5,687	0	0	0	0	0	0
4	922-Administrative Exp Transferred-Cr	EXP923	240	155	15	0	16	18	11
5	923-Outside Services Employed	EXP924	0	0	0	0	0	0	0
6	924-Property Insurance	EXP925	23,854	15,162	1,551	0	1,700	1,867	1,160
7	925-Injuries & Damages	EXP926	13,376	8,301	783	0	943	1,146	717
8	926-Employees Pensions & Benefits	EXP927	0	0	0	0	0	0	0
9	927-Regulatory Commission Expenses	EXP928	0	0	0	0	0	0	0
10	928-Duplicate Charges-Cr	EXP929	0	0	0	0	0	0	0
11	929-Miscellaneous General Exp	EXP930	112,650	71,601	7,324	0	8,028	8,818	5,477
12	931 Rents	EXP931	0	0	0	0	0	0	0
	Total Operation Labor		1,192,473	757,745	77,438	2	84,970	93,445	58,047
	Maintenance Labor								
13	932 Maintenance of General Plant	EXP932	297,628	182,326	17,420	1	21,140	26,803	16,004
14	Total Administrative & General Labor		1,490,102	940,071	94,858	3	106,110	120,249	74,051
15	Total Gas Operation & Maintenance Labor		23,718,343	14,836,933	1,439,093	39	1,688,185	2,001,129	1,213,606
CONSTRUCION LABOR CAPITALIZED									
	Distribution Related								
16	Distribution/Transmission	DISTR	3,541,199	1,873,499	35,920	14	213,338	433,839	339,474
17	Metscan	PLT397M	8,430	5,139	791	0	684	807	237
18	ERT	PLT397E	794,442	484,276	74,584	0	64,506	76,073	22,343
19	Conversion Burners	CUST3863	12,381	6,555	126	0	746	1,518	1,188
20	Total Capitalized Labor		4,356,461	2,369,470	111,421	14	279,275	512,237	363,242
21	Sum of Allocated Labor Expense		28,074,804	17,206,402	1,550,515	53	1,967,460	2,513,367	1,576,848

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 137 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
DEVEL OF LABOR ALLOC CONT-22							
ADMINISTRATIVE & GENERAL LABOR							
1	Operation Labor						
2	920-Administrative & General Salaries	EXP920	8,982	14,862	25,744	21,127	34,211
3	921-Office Supplies & Expenses	EXP921	49	82	141	116	188
4	922-Administrative Exp Transferred-Cr	EXP922	0	0	0	0	0
5	923-Outside Services Employed	EXP923	2	3	6	5	8
6	924-Property Insurance	EXP924	0	0	0	0	0
7	925-Injuries & Damages	EXP925	207	342	592	486	787
8	926-Employees Pensions & Benefits	EXP926	133	188	359	301	506
9	928-Regulatory Commission Expenses	EXP928	0	0	0	0	0
10	929-Duplicate Charges-Cr	EXP929	0	0	0	0	0
11	930-Miscellaneous General Exp	EXP930	976	1,615	2,797	2,296	3,718
12	931 Rents	EXP931	0	0	0	0	0
	Total Operation Labor		10,348	17,091	29,639	24,331	39,417
	Maintenance Labor						
13	932 Maintenance of General Plant	EXP932	2,929	4,441	8,621	6,801	11,143
14	Total Administrative & General Labor		13,277	21,532	38,260	31,131	50,560
15	Total Gas Operation & Maintenance Labor		223,848	338,823	626,784	506,957	842,946
CONSTRUCTION LABOR CAPITALIZED							
16	Distribution Related	DISTR					
17	Distribution/Transmission	PLT397M	71,130	30,148	121,435	141,357	281,044
18	Miscan	PLT397E	17	219	346	129	60
19	ERT	CUST3863	1,588	20,646	32,595	12,201	5,628
20	Conversion Burners		249	105	425	495	983
	Total Capitalized Labor		72,984	51,119	154,802	154,182	287,715
21	Sum of Allocated Labor Expense		296,832	389,941	781,586	661,139	1,130,661

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

REVENUE REQUIREMENTS-23		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
PRESENT RATES									
1	Rate Base		397,106,628	236,223,289	17,927,107	950	26,204,647	37,824,612	26,756,200
2	Net Operating Income (Present Rates)		22,923,351	16,544,412	(2,090,515)	107	1,368,653	2,579,381	1,472,496
3	Rate of Return (Present Rates)		5.77%	7.00%	-11.66%	11.24%	5.22%	6.82%	5.50%
4	Relative Rate of Return		1,000	1,213	-2,020	1,947	0,905	1,181	0,953
5	Sales Revenues (Present Rates)		478,651,282	323,429,755	10,830,018	2,726	31,946,429	46,870,369	22,321,850
6	Annual Booked Therm Sales		365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
7	Sale Revenue \$/Therm (Present Rates)		\$1.3080	\$1.3057	\$1.6937	\$0.9992	\$1.3704	\$1.2131	\$1.2767
CLAIMED RATE OF RETURN									
8	Claimed Rate of Return		9.05%	9.05%	9.05%	9.05%	9.05%	9.05%	9.05%
9	Return Req for Claimed Rate of Return		35,938,150	21,378,208	1,622,403	86	2,371,521	3,423,127	2,421,436
10	Sales Revenue Required Claimed ROR		500,066,007	331,383,347	16,939,304	2,692	33,596,561	48,258,681	23,883,250
11	Revenue Deficiency Sales Revenues		21,414,725	7,953,592	6,109,286	(34)	1,650,132	1,388,312	1,561,399
12	Percent Increase Required		4.47%	2.46%	56.41%	-1.25%	5.17%	2.96%	6.99%
13	Annual Booked Therm Sales		365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
14	Sales Revenue Required \$/Therm		\$1.3665	\$1.3378	\$2.6491	\$0.9867	\$1.4412	\$1.2490	\$1.3660
15	Revenue Deficiency \$/Therm		\$0.0585	\$0.0321	\$0.9554	-\$0.0125	\$0.0708	\$0.0359	\$0.0893
PROPOSED REVENUES									
16	Proposed Sales Revenues		500,066,007	331,383,347	16,939,304	2,692	33,596,561	48,258,681	23,883,250
17	Revenue Deficiency Sales Revenues		21,414,725	7,953,592	6,109,286	(34)	1,650,132	1,388,312	1,561,399
18	Percent Increase Proposed		4.47%	2.46%	56.41%	-1.25%	5.17%	2.96%	6.99%
19	Proposed Rate of Return		9.05%	9.05%	9.05%	9.05%	9.05%	9.05%	9.05%
20	Return Required for Proposed Revenue		35,938,150	21,378,208	1,622,403	86	2,371,521	3,423,127	2,421,436
21	Annual Booked Therm Sales		365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
22	Sales Revenue Required \$/Therm		\$1.3665	\$1.3378	\$2.6491	\$0.9867	\$1.4412	\$1.2490	\$1.3660
23	Revenue Deficiency \$/Therm		\$0.0585	\$0.0321	\$0.9554	-\$0.0125	\$0.0708	\$0.0359	\$0.0893

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 139 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

		ALLOD		HIGH WINTER		LOW WINTER		LOW WINTER		LOW WINTER	
				LRG HI ANNUAL G-43 & T-43		LOW ANNUAL G-50 & T-50	MED ANNUAL G-51 & T-51	HIGH ANNUAL G-52 & T-52	LRG HI ANNUAL G-53 & T-53		
REVENUE REQUIREMENTS-23											
PRESENT RATES											
1	Rate Base	5,061,778	4,783,357	11,279,886		11,145,300	19,899,502				
2	Net Operating Income (Present Rates)	133,631	80,156	393,417		790,697	1,650,917				
3	Rate of Return (Present Rates)	2.64%	1.68%	3.49%		7.09%	8.30%				
4	Relative Rate of Return	0.457	0.290	0.604		1.229	1.437				
5	Sales Revenues (Present Rates)	4,903,279	5,775,878	15,241,815		9,011,447	8,317,714				
6	Annual Booked Therm Sales	4,431,946	4,446,204	13,718,907		6,665,891	3,153,997				
7	Sale Revenue \$/Therm (Present Rates)	\$1,1063	\$1,2991	\$1,1110		\$1,3519	\$2,6372				
CLAIMED RATE OF RETURN											
8	Claimed Rate of Return	9.05%	9.05%	9.05%		9.05%	9.05%				
9	Return Req for Claimed Rate of Return	458,091	432,894	1,020,830		1,008,650	1,800,905				
10	Sales Revenue Required Claimed ROR	5,437,151	6,356,277	16,274,168		9,370,069	8,564,507				
11	Revenue Deficiency Sales Revenues	533,871	580,399	1,032,353		358,622	246,793				
12	Percent Increase Required	10.89%	10.05%	6.77%		3.98%	2.97%				
13	Annual Booked Therm Sales	4,431,946	4,446,204	13,718,907		6,665,891	3,153,997				
14	Sales Revenue Required \$/Therm	\$1,2268	\$1,4296	\$1,1863		\$1,4057	\$2,7154				
15	Revenue Deficiency \$/Therm	\$0.1205	\$0.1305	\$0.0753		\$0.0538	\$0.0782				
PROPOSED REVENUES											
16	Proposed Sales Revenues	5,437,151	6,356,277	16,274,168		9,370,069	8,564,507				
17	Revenue Deficiency Sales Revenues	533,871	580,399	1,032,353		358,622	246,793				
18	Percent Increase Proposed	10.89%	10.05%	6.77%		3.98%	2.97%				
19	Proposed Rate of Return	9.05%	9.05%	9.05%		9.05%	9.05%				
20	Return Required for Proposed Revenue	458,091	432,894	1,020,830		1,008,650	1,800,905				
21	Annual Booked Therm Sales	4,431,946	4,446,204	13,718,907		6,665,891	3,153,997				
22	Sales Revenue Required \$/Therm	\$1,2268	\$1,4296	\$1,1863		\$1,4057	\$2,7154				
23	Revenue Deficiency \$/Therm	\$0.1205	\$0.1305	\$0.0753		\$0.0538	\$0.0782				

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE-24		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
DEMAND RELATED									
PRODUCTION ALLOCATORS									
1	Design Day Remaining Demands - Sales		369,418	257,370	1,878	0	31,505	47,004	18,466
2	LPG Production Allocator - Prod Function		369,418	257,370	1,878	0	31,505	47,004	18,466
3	LPG Production Allocator - Prod Function		369,418	257,370	1,878	0	31,505	47,004	18,466
4	LNG Production Allocator - Prod Function		100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
5	LPG & LNG Prod Alloc - Distr Function		28.6%						
6	LPG & LNG Distr Pressure Support %								
7									
8	Design Day Base Demands - Sales Cust		28,184	17,260	1,344	1	757	1,609	920
9	Design Day Remaining Demands - Sales		369,418	257,370	1,878	0	31,505	47,004	18,466
10	Total Design Day Sendout - Sales Cust		397,602	274,630	3,222	1	32,262	48,613	19,386
11									
12									
13	GAS COST ALLOCATORS								
14	Base Demand Gas Costs	DBASE	6,288,068	3,862,967	300,841	169	168,590	358,374	205,273
15	Remaining Demand Gas Costs	DREMAIN	45,807,643	31,913,801	232,905	0	3,906,613	5,828,405	2,289,761
16									
17									
18									
DISTRIBUTION ALLOCATORS									
1	Distribution Allocator	DISTR	100,0000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
2									
3	Pension & PBOP Expense Allocator	PENSION	175,507,389	111,553,441	11,410,115	356	12,507,429	13,738,676	8,533,527
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 141 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
------	---	---	---	--	--

ALLOCATION FACTOR TABLE-24

DEMAND RELATED

1	PRODUCTION ALLOCATORS
2	Design Day Remaining Demands - Sales
3	LPG Production Allocator - Prod Function
4	LNG Production Allocator - Prod Function
5	LPG & LNG Prod Alloc - Distr Function
6	LPG & LNG Distr Pressure Support %
7	
8	Design Day Base Demands - Sales Cust
9	Design Day Remaining Demands - Sales
10	Total Design Day Sendout - Sales Cust
11	
12	

GAS COST ALLOCATORS

13	Base Demand Gas Costs
14	DBASE
15	Remaining Demand Gas Costs
16	DREMAIN
17	
18	

DISTRIBUTION ALLOCATORS

1	Distribution Allocator
2	
3	Pension & PBOP Expense Allocator
4	PENSION
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

1,551	4,381	1,289	1,637
1,551	4,381	1,289	1,637
1,551	4,381	1,289	1,637
0.8514%	3.4292%	3.9918%	7.9364%
874	2,853	1,598	414
1,551	4,381	1,289	1,637
2,425	7,234	2,887	2,051
195,298	638,567	342,813	92,342
192,307	543,192	159,796	203,086
0.8514%	3.4292%	3.9918%	7.9364%
2,516,064	4,358,376	3,576,860	5,791,979

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE CONT-25		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
COMMODITY RELATED									
1	Base Commodity Gas Costs	EBASE	80,774,205	49,657,716	3,867,284	2,167	2,158,849	4,619,659	2,632,837
2	Remaining Commodity Gas Costs	EREMAIN	191,688,704	134,395,424	1,128,159	0	14,855,080	23,713,567	10,221,852
3									
4									
5									
6									
7	Annual Therm Firm Sales		365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
8	Annual Therm Firm Transportation		127,549,264	79,549	1,908	0	1,900,026	15,524,113	26,651,718
9	Total Annual Therm Firm Throughput		493,498,312	247,783,289	6,396,166	2,728	25,211,236	54,160,592	44,135,406
10									
11	Annual Base Therm - Sales Actual		378,169,527	256,470,043	6,394,258	2,728	24,381,470	40,254,087	18,083,791
12	Weather Normalization Adj Base - Sales		(12,220,479)	(8,766,303)	0	0	(1,070,260)	(1,617,608)	(600,103)
13									
14	Annual Base Therm - Trans Actual		129,319,171	81,962	1,908	0	1,982,789	16,124,058	27,584,660
15	Weather Normalization Adj Base - Trans		(1,769,907)	(2,413)	0	0	(82,763)	(599,945)	(932,942)
16									
17	Annual Therm Firm Sales Sendout		369,645,503	250,205,798	6,458,846	2,756	23,546,677	39,026,746	17,660,291
18	Annual Therm Firm Trans Sendout		128,837,641	80,353	1,927	0	1,919,218	15,680,922	26,920,927
19	Total Ann Therm Firm Throughput Sendout		498,483,144	250,286,151	6,460,773	2,756	25,465,895	54,707,668	44,581,218
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 143 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE CONT-25	COMMODITY RELATED	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Base Commodity Gas Costs	Ebase	1,577,413	2,506,976	8,208,799	4,357,592	1,184,913
2	Remaining Commodity Gas Costs	Eremain	1,678,560	945,632	2,525,235	933,008	1,292,187
3							
4							
5							
6							
7	Annual Therm Firm Sales		4,431,946	4,446,204	13,718,907	6,665,891	3,153,997
8	Annual Therm Firm Transportation		5,036,085	797,782	7,650,476	18,839,377	51,068,230
9	Total Annual Therm Firm Throughput		9,468,031	5,243,986	21,369,383	25,505,268	54,222,227
10							
11	Annual Base Therm - Sales Actual		4,598,151	4,446,204	13,718,907	6,665,891	3,153,997
12	Weather Normalization Adj Base -Sales		(166,205)	0	0	0	0
13							
14	Annual Base Therm - Trans Actual		5,187,929	797,782	7,650,476	18,839,377	51,068,230
15	Weather Normalization Adj Base -Trans		(151,844)	0	0	0	0
16							
17	Annual Therm Firm Sales Sendout		4,476,713	4,491,115	13,857,482	6,733,223	3,185,856
18	Annual Therm Firm Trans Sendout		5,086,955	805,840	7,727,754	19,029,674	51,584,071
19	Tot Ann Therm Firm Throughput Sendout		9,563,668	5,296,955	21,585,236	25,762,897	54,769,927
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE CONT-26		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
CUSTOMER RELATED									
1	Acct 380 Gas Services	CUST380	228,746,364	166,042,757	24,984,666	0	17,876,084	6,169,869	4,778,556
2	Acct 381 Gas Meters	CUST381	24,915,976	15,188,303	2,339,184	0	2,023,106	2,385,861	700,742
3	Acct 382 Meter Installations	CUST382	45,198,411	27,552,090	4,243,357	0	3,689,983	4,328,031	1,271,169
4	Acct 383 Gas Regulators	CUST383	13,612,047	8,297,644	1,277,938	0	1,105,260	1,303,439	382,828
5	Customer Deposits	CUSTDEP	2,065,320	26,212	151	0	747,953	611,185	143,020
6	Transportation Customers	CUSTTR	38,807	439	59	0	9,286	12,352	4,096
7	Acct 386.0 Gas Water Heaters	CUST3860	100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
8	Acct 386.2 Cascade Diamond Boilers	CUST3862	100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
9	Acct 386.3 Conversion Burners	CUST3863	100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
10	Acct 487-Return Check Charges	CUST487	27,736	20,434	1,226	0	2,093	1,971	653
11	Acct 488-Rental Rev-W/H & Conv Burn	CUST488	100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
12	Acct 882-Revenue Guardian Care & C/S	CUST882	100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
13	Acct 902 Meter Reading Expense	CUST902	283,675	220,467	33,089	0	17,023	4,714	1,240
14	Acct 903-Cust Records & Collection Exp	CUST903	281,020	222,208	31,413	0	16,684	4,683	619
15	Acct 912-Demonstrating & Selling Exp	CUST912	100,000%	64,3422%	6,5521%	0.0000%	5,5093%	6,3206%	4,5820%
16	Acct 913-Advertising Expense	CUST913	100,000%	64,3422%	6,5521%	0.0000%	5,5093%	6,3206%	4,5820%
17	Acct 879-Customer Installations Exp	CUST879	100,000%	52,9058%	1,0143%	0.0004%	6,0245%	12,2512%	9,5864%
18	Acct 903 Collections Expense	CUST903C	11,447,296	8,185,483	1,185,903	3	1,117,566	384,625	103,390
19	Number of Meters		282,127	220,467	33,089	0	16,910	4,443	1,015
20	Average Number of Bills		281,032	222,208	31,413	12	16,684	4,683	619
21	Average Number of Customers		279,901	219,642	33,050	12	16,541	4,664	617
22	TOTAL ANNUAL BILL COUNTS		3,372,382	2,666,494	376,961	144	200,206	56,195	7,432
23	Bi-Monthly Sales Bills		23,554	0	23,554	0	0	0	0
24	Sales Bills		3,309,471	2,665,888	353,282	144	190,733	43,802	3,331
25	Farm Sales Bills		484	166	66	0	170	24	0
26	Transportation Bills		36,729	428	59	0	9,141	11,985	3,777
27	Farm Transportation Bills		80	12	0	0	12	23	24
28	Daily Metered Transportation Bills		2,064	0	0	0	150	361	300
29									
30	TOTAL ANNUAL CUSTOMER COUNTS		3,358,808	2,635,699	396,597	143	198,495	55,963	7,406
31	Bi-Monthly Sales Customers		47,645	0	47,645	0	0	0	0
32	Sales Customers		3,271,874	2,635,095	348,828	143	188,039	43,587	3,310
33	Farm Sales Customers		482	165	65	0	170	24	0
34	Transportation Customers		36,667	427	59	0	9,124	11,968	3,772
35	Farm Transportation Customers		80	12	0	0	12	23	24
36	Daily Metered Transportation Customers		2,060	0	0	0	150	361	300
37									

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 145 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE CONT-26							
CUSTOMER RELATED		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
<hr/>							
1	Acct 380 Gas Services	CUST380	203,287	3,565,851	2,310,269	1,922,133	892,892
2	Acct 381 Gas Meters	CUST381	49,813	647,509	1,022,284	382,655	176,519
3	Acct 382 Meter Installations	CUST382	90,363	1,174,602	1,854,457	694,148	320,211
4	Acct 383 Gas Regulators	CUST383	27,214	353,746	558,492	209,051	96,435
5	Customer Deposits	CUSTDEP	79,450	140,898	246,296	70,155	0
6	Transportation Customers	CUSTTR	120	4,054	5,806	1,889	706
7	Acct 386.0 Gas Water Heaters	CUST3860	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
8	Acct 386.2 Cascade Diamond Boilers	CUST3862	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
9	Acct 386.3 Conversion Burners	CUST3863	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
10	Acct 487-Return Check Charges	CUST487	111	382	562	211	93
11	Acct 488-Rental Rev-W/H & Conv Burn	CUST488	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
12	Acct 882-Revenue Guardian Care & C/S	CUST882	2.0086%	0.8514%	3.4292%	3.9918%	7.9364%
13	Acct 902 Meter Reading Expense	CUST902	153	3,563	2,143	663	622
14	Acct 903-Cust Records & Collection Exp	CUST903	15	3,326	1,756	249	67
15	Acct 912-Demonstrating & Selling Exp	CUST912	0.9620%	1.1208%	2.4771%	2.6285%	5.5055%
16	Acct 913-Advertising Expense	CUST913	0.9620%	1.1208%	2.4771%	2.6285%	5.5055%
17	Acct 879-Customer Installations Exp	CUST879	2,0086%	0.8514%	3,4292%	3,9918%	7,9364%
18	Acct 903 Collections Expense	CUST903C	14,220	220,619	136,388	42,482	56,618
19	Number of Meters		63	3,546	2,076	427	91
20	Average Number of Bills		15	3,326	1,756	249	67
21	Average Number of Customers		15	3,300	1,746	248	66
22							
23	TOTAL ANNUAL BILL COUNTS		181	39,908	21,073	2,989	799
24	Bi-Monthly Sales Bills		0	0	0	0	0
25	Sales Bills		61	35,789	15,250	1,100	91
26	Farm Sales Bills		0	58	0	0	0
27	Transportation Bills		0	4,039	5,734	1,566	0
28	Farm Transportation Bills		0	0	0	9	0
29	Daily Metered Transportation Bills		120	22	89	314	708
30							
31	TOTAL ANNUAL CUSTOMER COUNTS		181	39,595	20,955	2,979	795
32	Bi-Monthly Sales Customers		0	0	0	0	0
33	Sales Customers		61	35,483	15,149	1,090	89
34	Farm Sales Customers		0	58	0	0	0
35	Transportation Customers		0	4,032	5,719	1,566	0
36	Farm Transportation Customers		0	0	0	9	0
37	Daily Metered Transportation Customers		120	22	87	314	706

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE CONT-27		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
INTERNALLY DEVELOPED									
UNCOLLECTIBLE ACCOUNTS									
1	Residential Heating Rate R-3 & R-4	C904R3	331,383,347	331,383,347	0	0	0	0	0
2	Residential Non-Heating Rate R-1 & R-2	C904R1	16,939,304	0	16,939,304	0	0	0	0
3	Outdoor Lighting	C904OL	2,692	0	0	2,692	0	0	0
4	High Winter Low Annual Rate G40 & T40	C904R40	33,596,561	0	0	0	33,596,561	0	0
5	High Winter Med Annual Rate G41 & T41	C904R41	48,258,681	0	0	0	0	48,258,681	0
6	High Winter High Annual Rate G42 & T42	C904R42	23,883,250	0	0	0	0	0	23,883,250
7	High Winter Large Annual Rate G43 & T43	C904R43	5,437,151	0	0	0	0	0	0
8	Low Winter Low Annual Rate G50 & T50	C904R50	6,356,277	0	0	0	0	0	0
9	Low Winter Med Annual Rate G51 & T51	C904T51	16,274,168	0	0	0	0	0	0
10	Low Winter High Annual Rate G52 & T52	C904R52	9,370,069	0	0	0	0	0	0
11	Low Winter Large Annual Rate G53 & T53	C904R53	8,564,507	0	0	0	0	0	0
LATE PAYMENT CHARGES									
12									
13									
14									
15	High Winter Low Annual Rate G40 & T40	C487R40	33,596,561	0	0	0	33,596,561	0	0
16	High Winter Med Annual Rate G41 & T41	C487R41	48,258,681	0	0	0	0	48,258,681	0
17	High Winter High Annual Rate G42 & T42	C487R42	23,883,250	0	0	0	0	0	23,883,250
18	High Winter Large Annual Rate G43 & T43	C487R43	5,437,151	0	0	0	0	0	0
19	Low Winter Low Annual Rate G50 & T50	C487R50	6,356,277	0	0	0	0	0	0
20	Low Winter Med Annual Rate G51 & T51	C487T51	16,274,168	0	0	0	0	0	0
21	Low Winter High Annual Rate G52 & T52	C487R52	9,370,069	0	0	0	0	0	0
22	Low Winter Large Annual Rate G53 & T53	C487R53	8,564,507	0	0	0	0	0	0
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 147 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 148 of 322

ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
C904R3	0	0	0	0	0
C904R1	0	0	0	0	0
C904OL	0	0	0	0	0
C904R40	0	0	0	0	0
C904R41	0	0	0	0	0
C904R42	0	0	0	0	0
C904R43	5,437,151	0	0	0	0
C904R50	0	6,356,277	16,274,168	0	0
C904T51	0	0	0	9,370,069	0
C904R52	0	0	0	0	0
C904R53	0	0	0	0	8,564,507

LATE PAYMENT CHARGES

C487R40	0	0	0	0	0
C487R41	0	0	0	0	0
C487R42	0	0	0	0	0
C487R43	5,437,151	0	0	0	0
C487R50	0	6,356,277	16,274,168	0	0
C487T51	0	0	0	9,370,069	0
C487R52	0	0	0	0	0
C487R53	0	0	0	0	8,564,507

ALLOCATION FACTOR TABLE CONT-27

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

1	Residential Heating Rate R-3 & R-4	C904R3	0	0	0	0
2	Residential Non-Heating Rate R-1 & R-2	C904R1	0	0	0	0
3	Outdoor Lighting	C904OL	0	0	0	0
4	High Winter Low Annual Rate G40 & T40	C904R40	0	0	0	0
5	High Winter Med Annual Rate G41 & T41	C904R41	0	0	0	0
6	High Winter High Annual Rate G42 & T42	C904R42	0	0	0	0
7	High Winter Large Annual Rate G43 & T43	C904R43	5,437,151	0	0	0
8	Low Winter Low Annual Rate G50 & T50	C904R50	0	6,356,277	16,274,168	0
9	Low Winter Med Annual Rate G51 & T51	C904T51	0	0	0	9,370,069
10	Low Winter High Annual Rate G52 & T52	C904R52	0	0	0	0
11	Low Winter Large Annual Rate G53 & T53	C904R53	0	0	0	8,564,507

LATE PAYMENT CHARGES

14	High Winter Low Annual Rate G40 & T40	C487R40	0	0	0	0
15	High Winter Med Annual Rate G41 & T41	C487R41	0	0	0	0
16	High Winter High Annual Rate G42 & T42	C487R42	0	0	0	0
17	High Winter Large Annual Rate G43 & T43	C487R43	5,437,151	0	0	0
18	Low Winter Low Annual Rate G50 & T50	C487R50	0	6,356,277	16,274,168	0
19	Low Winter Med Annual Rate G51 & T51	C487T51	0	0	0	9,370,069
20	Low Winter High Annual Rate G52 & T52	C487R52	0	0	0	0
21	Low Winter Large Annual Rate G53 & T53	C487R53	0	0	0	8,564,507

29-Jun-05 10:27 AM

ALLOCATION FACTOR TABLE CONT-27

ALLOC

TOTAL COMPANY
INPUT

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

1	Residential Heating Rate R-3 & R-4	C904R3	Page 23 , Line 10, Col 2
2	Residential Non-Heating Rate R-1 & R-2	C904R1	Page 23 , Line 10, Col 3
3	Outdoor Lighting	C904OL	Page 23 , Line 10, Col 4
4	High Winter Low Annual Rate G40 & T40	C904R40	Page 23 , Line 10, Col 5
5	High Winter Med Annual Rate G41 & T41	C904R41	Page 23 , Line 10, Col 6
6	High Winter High Annual Rate G42 & T42	C904R42	Page 23 , Line 10, Col 7
7	High Wint Large Annual Rate G43 & T43	C904R43	Page 23 , Line 10, Col 8
8	Low Winter Low Annual Rate G50 & T50	C904R50	Page 23 , Line 10, Col 9
9	Low Winter Med Annual Rate G51 & T51	C904T51	Page 23 , Line 10, Col 10
10	Low Winter High Annual Rate G52 & T52	C904R52	Page 23 , Line 10, Col 11
11	Low Wint Large Annual Rate G53 & T53	C904R53	Page 23 , Line 10, Col 12

LATE PAYMENT CHARGES

12	High Winter Low Annual Rate G40 & T40	C487R40	Page 23 , Line 10, Col 5
13	High Winter Med Annual Rate G41 & T41	C487R41	Page 23 , Line 10, Col 6
14	High Winter High Annual Rate G42 & T42	C487R42	Page 23 , Line 10, Col 7
15	High Wint Large Annual Rate G43 & T43	C487R43	Page 23 , Line 10, Col 8
16	Low Winter Low Annual Rate G50 & T50	C487R50	Page 23 , Line 10, Col 9
17	Low Winter Med Annual Rate G51 & T51	C487T51	Page 23 , Line 10, Col 10
18	Low Winter High Annual Rate G52 & T52	C487R52	Page 23 , Line 10, Col 11
19	Low Wint Large Annual Rate G53 & T53	C487R53	Page 23 , Line 10, Col 12

23
24
25
26
27
28
29
30
31
32
33

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED-28		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Total Gas Plant In Service	PLANT	754,551,098	459,546,304	40,473,034	1,513	52,436,776	66,161,719	45,924,428
2	Sum of Allocated Labor Expense	LABOR	28,074,804	17,206,402	1,550,515	53	1,967,460	2,513,367	1,576,848
3	Acct 301 Organization	PLT301	689,189	419,738	36,967	1	47,894	60,431	41,946
4	Acct 303 Misc. Intangible Plant	PLT303	34,573,711	21,189,433	1,909,436	65	2,422,899	3,095,174	1,941,865
5	Acct 305 Structures & Improvements	PLT305	2,368,951	1,536,851	15,471	3	185,067	298,219	149,499
6	Acct 311 L.P. Gas Equipment	PLT311	4,339,415	2,815,185	28,340	5	339,003	546,273	273,850
7	Acct 320 Other Equipment	PLT320	819,245	531,483	5,350	1	64,001	103,132	51,701
8	Acct 321 L.N.G. Equipment	PLT321	15,428,067	10,008,921	100,757	17	1,205,269	1,942,183	973,629
9	Acct 365 Right of Way	PLT365	79,051	41,823	802	0	4,762	9,685	7,578
10	Acct 366 Structures & Improvements	PLT366	2,108,612	1,115,578	21,388	8	127,032	258,330	202,140
11	Acct 367 Gas Mains	PLT367	309,786,822	163,895,149	3,142,289	1,207	18,662,957	37,952,606	29,697,435
12	Acct 368 Compressor Station Equipment	PLT368	327,265	173,142	3,320	1	19,716	40,094	31,373
13	Acct 369 Meas. & Reg. Station Equip	PLT369	12,355,156	6,536,592	125,323	48	744,330	1,513,655	1,184,416
14	Acct 380 Gas Services	PLT380	228,746,364	166,042,757	24,984,666	0	17,876,084	6,169,869	4,778,556
15	Acct 381 Gas Meters	PLT381	24,915,974	15,188,301	2,339,184	0	2,023,106	2,385,861	700,742
16	Acct 382 Meter Installations	PLT382	45,198,411	27,552,090	4,243,357	0	3,669,983	4,328,031	1,271,169
17	Acct 383 Gas Regulators	PLT383	13,612,047	8,297,644	1,277,938	0	1,105,260	1,303,439	382,828
18	Acct 386 Gas Water Heaters	PLT386	14,053,362	7,435,052	142,549	55	846,639	1,721,708	1,347,215
19	Acct 386 Cascade Diamond Boilers	PLT3862	569,752	301,432	5,779	2	34,324	69,801	54,619
20	Acct 386 Conversion Burners	PLT3863	7,835,153	4,145,249	79,475	31	472,025	959,900	751,110
21	Acct 387 Other Equipment	PLT387	1,719,559	909,746	17,442	7	103,594	210,667	164,844
22	Acct 379 Other Equipment	PLT379	510,252	269,953	5,176	2	30,740	62,512	48,915
23	Acct 390 Structures & Improvements	PLT390	7,303,824	4,476,346	403,375	14	511,846	653,867	410,226
24	Acct 391 Office Equipment	PLT391	11,420,359	6,999,276	630,723	21	800,330	1,022,395	641,435
25	Acct 392 Transportation Equipment	PLT392	2,363,594	1,448,592	130,537	4	165,639	211,598	132,754
26	Acct 393 Stores Equipment	PLT393	50,473	30,933	2,787	0	3,537	4,519	2,835
27	Acct 394 Tools, Shop & Garage Equip	PLT394	1,847,938	1,132,559	102,058	3	129,502	165,435	103,791
28	Acct 396 Power Operated Equipment	PLT396	406,425	249,088	22,446	1	28,482	36,385	22,827
29	Acct 397 Communication Equip-Other	PLT397O	7,400,316	4,535,484	408,705	14	518,608	662,505	415,646
30	Acct 398 Miscellaneous Equipment	PLT398	25,220	15,457	1,393	0	1,767	2,258	1,417
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	137,472	89,184	898	0	10,740	17,306	8,676
32	Acct 717-LPG Gas Expenses	EXP717	476	309	3	0	37	60	30
33	Acct 719-Handling Expense	EXP719	20,028	12,993	131	0	1,565	2,521	1,264
34	Acct 735-Miscellaneous Production Exp	EXP735	213,302	138,379	1,393	0	16,664	26,852	13,461
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	47,828	31,028	312	0	3,736	6,021	3,018
36	Acct 741-Maintenance of Struct & Improv	EXP741	12,023	7,800	79	0	939	1,514	759
37	Acct 742-Maintenance of Production Eq	EXP742	107,427	69,693	702	0	8,392	13,524	6,779
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	541,175	351,086	3,534	1	42,278	68,127	34,452
39	Acct 754-Liquefaction Expense	EXP754	165,884	107,617	1,083	0	12,959	20,883	10,469
40	Acct 757-Vaporization Expense	EXP757	29,356	19,045	192	0	2,293	3,696	1,853

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 150 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED-28		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Total Gas Plant In Service	PLANT	8,428,999	9,839,523	20,122,202	19,092,700	32,523,900
2	Sum of Allocated Labor Expense	LABOR	296,832	389,941	781,586	661,139	1,130,661
3	Acct 301 Organization	PLT301	7,699	8,987	18,379	17,439	29,707
4	Acct 303 Misc. Intangible Plant	PLT303	365,544	480,207	962,511	814,184	1,392,393
5	Acct 305 Structures & Improvements	PLT305	33,467	12,870	43,293	32,947	61,266
6	Acct 311 L.P. Gas Equipment	PLT311	61,304	23,574	79,303	60,352	112,226
7	Acct 320 Other Equipment	PLT320	11,574	4,451	14,972	11,394	21,187
8	Acct 321 L.N.G. Equipment	PLT321	217,955	83,815	281,948	214,571	399,002
9	Acct 365 Right of Way	PLT365	1,588	673	2,711	3,156	6,274
10	Acct 366 Structures & Improvements	PLT366	42,355	17,952	72,309	84,171	167,348
11	Acct 367 Gas Mains	PLT367	6,222,526	2,637,410	10,623,268	12,366,039	24,385,934
12	Acct 368 Compressor Station Equipment	PLT368	6,574	2,786	11,223	13,064	25,973
13	Acct 369 Meas. & Reg. Station Equip	PLT369	248,172	105,187	423,685	493,192	980,555
14	Acct 380 Gas Services	PLT380	203,287	3,565,851	2,310,269	1,922,133	892,892
15	Acct 381 Gas Meters	PLT381	49,813	647,509	1,022,284	382,655	176,519
16	Acct 382 Meter Installations	PLT382	90,363	1,174,602	1,854,457	694,148	320,211
17	Acct 383 Gas Regulators	PLT383	27,214	353,746	558,492	209,051	96,435
18	Acct 386 Gas Water Heaters	PLT386	282,283	119,645	481,921	560,982	1,115,333
19	Acct 386 Cascade Diamond Boilers	PLT3862	11,444	4,851	19,538	22,743	45,218
20	Acct 386 Conversion Burners	PLT3863	157,381	66,706	268,685	312,763	621,829
21	Acct 387 Other Equipment	PLT387	34,540	14,640	58,967	68,641	136,471
22	Acct 379 Other Equipment	PLT379	10,249	4,344	17,498	20,368	40,496
23	Acct 390 Structures & Improvements	PLT390	77,223	101,445	203,334	171,999	294,148
24	Acct 391 Office Equipment	PLT391	120,746	158,622	317,936	268,940	459,934
25	Acct 392 Transportation Equipment	PLT392	24,990	32,829	65,801	55,661	95,189
26	Acct 393 Stores Equipment	PLT393	534	701	1,405	1,189	2,033
27	Acct 394 Tools, Shop & Garage Equip	PLT394	19,538	25,667	51,445	43,517	74,422
28	Acct 396 Power Operated Equipment	PLT396	4,297	5,645	11,315	9,571	16,368
29	Acct 397 Communication Equip-Other	PLT397O	78,243	102,786	206,020	174,272	298,034
30	Acct 398 Miscellaneous Equipment	PLT398	267	350	702	594	1,016
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	1,942	747	2,512	1,912	3,555
32	Acct 717-LPG Gas Expenses	EXP717	7	3	9	7	12
33	Acct 719-Handling Expense	EXP719	283	109	366	279	518
34	Acct 735-Miscellaneous Production Exp	EXP735	3,013	1,159	3,898	2,967	5,516
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	676	260	874	665	1,237
36	Acct 741-Maintenance of Struct & Improv	EXP741	170	65	220	167	311
37	Acct 742-Maintenance of Production Eq	EXP742	1,518	584	1,963	1,494	2,778
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	7,645	2,940	9,890	7,527	13,996
39	Acct 754-Liquefaction Expense	EXP754	2,343	901	3,032	2,307	4,290
40	Acct 757-Vaporization Expense	EXP757	415	159	536	408	759

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED-28		ALLOC	TOTAL COMPANY INPUT
1	Total Gas Plant In Service	PLANT	Page 4, Line 18
2	Sum of Allocated Labor Expense	LABOR	Page 22, Line 21
3	Acct 301 Organization	PLT301	Page 2, Line 3
4	Acct 303 Misc. Intangible Plant	PLT303	Page 2, Line 4
5	Acct 305 Structures & Improvements	PLT305	Page 2, Line 13
6	Acct 311 L.P. Gas Equipment	PLT311	Page 2, Line 14
7	Acct 320 Other Equipment	PLT320	Page 2, Line 18
8	Acct 321 L.N.G. Equipment	PLT321	Page 2, Line 19
9	Acct 365 Right of Way	PLT365	Page 3, Line 2
10	Acct 366 Structures & Improvements	PLT366	Page 3, Line 3
11	Acct 367 Gas Mains	PLT367	Page 3, Line 11
12	Acct 368 Compressor Station Equipment	PLT368	Page 3, Line 12
13	Acct 369 Meas. & Reg. Station Equip	PLT369	Page 3, Line 13
14	Acct 380 Gas Services	PLT380	Page 3, Line 14
15	Acct 381 Gas Meters	PLT381	Page 3, Line 15
16	Acct 382 Meter Installations	PLT382	Page 3, Line 16
17	Acct 383 Gas Regulators	PLT383	Page 3, Line 17
18	Acct 386 Gas Water Heaters	PLT386	Page 3, Line 18
19	Acct 386 Cascade Diamond Boilers	PLT3862	Page 3, Line 19
20	Acct 386 Conversion Burners	PLT3863	Page 3, Line 20
21	Acct 387 Other Equipment	PLT387	Page 3, Line 22
22	Acct 379 Other Equipment	PLT379	Page 3, Line 24
23	Acct 390 Structures & Improvements	PLT390	Page 4, Line 2
24	Acct 391 Office Equipment	PLT391	Page 4, Line 6
25	Acct 392 Transportation Equipment	PLT392	Page 4, Line 7
26	Acct 393 Stores Equipment	PLT393	Page 4, Line 8
27	Acct 394 Tools, Shop & Garage Equip	PLT394	Page 4, Line 9
28	Acct 396 Power Operated Equipment	PLT396	Page 4, Line 10
29	Acct 397 Communication Equip-Other	PLT397O	Page 4, Line 11 & 12
30	Acct 398 Miscellaneous Equipment	PLT398	Page 4, Line 16
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	Pg 19, Ln 2 to 4
32	Acct 717-LPG Gas Expenses	EXP717	Page 9, Line 2
33	Acct 719-Handling Expense	EXP719	Page 9, Line 3
34	Acct 735-Miscellaneous Production Exp	EXP735	Page 9, Line 6
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	Pg 19, Ln 9 to 10
36	Acct 741-Maintenance of Struct & Improv	EXP741	Page 9, Line 9
37	Acct 742-Maintenance of Production Eq	EXP742	Page 9, Line 10
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	Pg 19, Ln 14 to 18
39	Acct 754-Liquefaction Expense	EXP754	Page 9, Line 14
40	Acct 757-Vaporization Expense	EXP757	Page 9, Line 15

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-29

	ALOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 759-Handling Expense	EXP759	26,304	17,065	172	0	2,055	3,311	1,660
2 Acct 775-Miscellaneous Production Exp	EXP775	644,763	418,289	4,211	1	50,370	81,167	40,690
3 Acct 777-Lease Expense	EXP777	914,499	593,279	5,972	1	71,442	115,123	57,712
4 LNG Gas Prod Labor Accts 781 to 782	LABLM	110,159	71,466	719	0	8,606	13,868	6,952
5 Acct 781-Maintenance of Struct & Improv	EXP781	11,060	7,175	72	0	864	1,392	698
6 Acct 782-Maintenance of Production Eq	EXP782	262,396	170,229	1,714	0	20,499	33,032	16,559
7 Total Intangible Plant	INTPLT	35,262,900	21,609,171	1,946,403	66	2,470,793	3,155,605	1,983,812
8 Total Production Plant	PRODPLT	23,368,270	15,160,108	152,612	26	1,825,572	2,941,746	1,474,717
9 Trans & Distr Op Labor Accts 851 to 881	LABDO	10,090,604	5,827,173	522,637	20	707,331	1,048,766	631,652
10 Acct 851-Sys Control & Load Dispatch	EXP851	0	0	0	0	0	0	0
11 Acct 852-Communication System Exp	EXP852	143,882	76,122	1,459	1	8,668	17,627	13,793
12 Acct 857-Measuring & Regul Stat Exp	EXP857	405,485	214,525	4,113	2	24,428	49,677	38,871
13 Acct 874-Mains and Services Exp	EXP874	3,764,532	2,306,379	196,617	8	255,420	308,431	240,999
14 Acct 878-Meter & House Regulator Exp	EXP878	5,633,560	3,434,111	528,895	0	457,429	539,449	158,439
15 Acct 879-Customer Installations Exp	EXP879	5,923,626	3,133,941	60,086	23	356,866	725,715	567,863
16 Acct 880-Other Expenses	EXP880	580,567	335,260	28,941	1	40,341	60,024	37,311
17 Acct 881-Rents	EXP881	61,576	32,577	625	0	3,710	7,544	5,903
18 Trans & Distr Maint Lab Accts 851 to 881	LABDM	4,225,605	2,509,064	194,041	10	283,708	388,798	289,319
19 Acct 886-Maintenance of Struct & Improv	EXP886	41,025	21,705	416	0	2,472	5,026	3,933
20 Acct 887-Maintenance of Mains	EXP887	3,789,693	2,004,967	38,440	15	228,308	464,283	363,296
21 Acct 888-Maint of Compressor Station Eq	EXP888	0	0	0	0	0	0	0
22 Acct 889-Maint of Meas & Reg Station Eq	EXP889	229,637	121,491	2,329	1	13,834	28,133	22,014
23 Acct 892-Maintenance of Services	EXP892	1,687,229	1,224,728	184,286	0	131,854	45,509	35,247
24 Acct 893-Mnt of Meters and House Regul	EXP893	436,322	265,974	40,963	0	35,428	41,781	12,271
25 Acct 894-Maintenance of Other Equip	EXP894	403,627	213,542	4,094	2	24,316	49,449	38,693
26 Customer Accts Labor Accts 902 to 903	LABCA	5,617,451	4,092,955	556,665	3	421,361	198,596	87,862
27 Acct 902-Meter Reading Expenses	EXP902	695,743	540,719	81,154	0	41,749	11,561	3,041
28 Acct 903-Cust Records & Collection Exp	EXP903	7,500,932	5,417,854	726,172	4	577,292	283,482	128,327
29 Sales Expenses Labor Accts 912 to 916	LABSA	125,024	80,137	8,044	0	6,902	8,061	5,863
30 Acct 912-Demonstrating & Selling Exp	EXP912	159,642	102,717	10,460	0	8,795	10,090	7,315
31 Acct 913-Advertising Exp	EXP913	198,371	112,122	5,485	1	11,628	20,584	15,878
32 Acct 916-Miscellaneous Sales Exp	EXP916	7,065	4,240	315	0	403	605	458
33 Acct 920-Administrative & General Sal	EXP920	1,745,741	1,109,602	113,494	4	124,409	136,656	84,881
34 Acct 921-Office Supplies & Expenses	EXP921	3,909,418	2,484,847	254,160	8	278,602	306,028	190,084
35 Acct 922-Administrative Exp Transf-Cr	EXP922	(3,814,124)	(2,424,278)	(247,964)	(8)	(271,811)	(298,569)	(185,450)
36 Acct 923-Outside Services Employed	EXP923	24,687,388	15,992,874	1,565,020	120	1,696,366	1,878,625	1,157,507
37 Acct 924-Property Insurance	EXP924	0	0	0	0	0	0	0
38 Acct 925-Injuries & Damages	EXP925	2,903,441	1,845,443	188,759	6	206,912	227,281	141,111
39 Acct 926-Employees Pensions & Benef	EXP926	14,803,575	9,187,014	866,751	29	1,043,380	1,268,756	793,838
40 Acct 928-Regulatory Commission Exp	EXP928	690,943	439,167	44,920	1	49,240	54,087	33,336

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 153 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-29		ALOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Acct 759-Handling Expense	EXP759	372	143	481	366	680
2	Acct 775-Miscellaneous Production Exp	EXP775	9,109	3,503	11,783	8,967	16,675
3	Acct 777-Lease Expense	EXP777	12,919	4,968	16,712	12,719	23,651
4	LNG Gas Prod Labor Accts 781 to 782	LABLM	1,556	598	2,013	1,532	2,849
5	Acct 781-Maintenance of Struct & Improv	EXP781	156	60	202	154	286
6	Acct 782-Maintenance of Production Eq	EXP782	3,707	1,425	4,795	3,649	6,786
7	Total Intangible Plant	INTPLT	373,243	489,194	980,890	831,622	1,422,099
8	Total Production Plant	PRODPLT	330,127	126,951	427,056	325,003	604,352
9	Trans & Distr Op Labor Accts 851 to 881	LABDO	113,739	162,290	353,072	277,486	446,438
10	Acct 851-Sys Control & Load Dispatch	EXP851	0	0	0	0	0
11	Acct 852-Communication System Exp	EXP852	2,890	1,225	4,934	5,743	11,419
12	Acct 857-Measuring & Regul Stat Exp	EXP857	8,145	3,452	13,905	16,186	32,181
13	Acct 874-Mains and Services Exp	EXP874	44,919	43,363	90,410	99,879	178,106
14	Acct 878-Meter & House Regulator Exp	EXP878	11,263	146,403	231,141	86,519	39,911
15	Acct 879-Customer Installations Exp	EXP879	118,985	50,432	203,134	236,459	470,123
16	Acct 880-Other Expenses	EXP880	6,811	8,958	19,882	16,270	26,767
17	Acct 881-Rents	EXP881	1,237	524	2,112	2,458	4,887
18	Trans & Distr Maint Lab Accts 851 to 881	LABDM	55,003	50,365	116,494	121,240	217,563
19	Acct 886-Maintenance of Struct & Improv	EXP886	824	349	1,407	1,638	3,256
20	Acct 887-Maintenance of Mains	EXP887	76,122	32,264	129,957	151,277	300,765
21	Acct 888-Maint of Compressor Station Eq	EXP888	0	0	0	0	0
22	Acct 889-Maint of Meas & Reg Station Eq	EXP889	4,613	1,955	7,875	9,167	18,225
23	Acct 892-Maintenance of Services	EXP892	1,499	26,302	17,041	14,178	6,586
24	Acct 893-Mnt of Meters and House Regul	EXP893	872	11,339	17,902	6,701	3,091
25	Acct 894-Maintenance of Other Equip	EXP894	8,107	3,436	13,841	16,112	32,033
26	Customer Accts Labor Accts 902 to 903	LABCA	14,334	83,385	68,333	37,123	56,834
27	Acct 902-Meter Reading Expenses	EXP902	375	8,737	5,255	1,625	1,526
28	Acct 903-Cust Records & Collection Exp	EXP903	21,106	113,575	95,748	53,744	83,629
29	Sales Expenses Labor Accts 912 to 916	LABSA	1,231	1,394	3,122	3,323	6,948
30	Acct 912-Demonstrating & Selling Exp	EXP912	1,536	1,789	3,954	4,196	8,789
31	Acct 913-Advertising Exp	EXP913	3,328	1,858	6,205	7,064	14,219
32	Acct 916-Miscellaneous Sales Exp	EXP916	96	72	200	222	454
33	Acct 920-Administrative & General Sal	EXP920	15,125	25,027	43,352	35,578	57,612
34	Acct 921-Office Supplies & Expenses	EXP921	33,871	56,045	97,083	79,674	129,016
35	Acct 922-Administrative Exp Transf-Cr	EXP922	(33,045)	(54,679)	(94,716)	(77,732)	(125,871)
36	Acct 923-Outside Services Employed	EXP923	218,189	328,866	590,945	480,380	778,494
37	Acct 924-Property Insurance	EXP924	0	0	0	0	0
38	Acct 925-Injuries & Damages	EXP925	25,155	41,624	72,101	59,172	95,817
39	Acct 926-Employees Pensions & Benef	EXP926	146,921	207,857	397,011	332,683	559,635
40	Acct 928-Regulatory Commission Exp	EXP928	5,996	9,905	17,158	14,081	22,802

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-29		ALLOC	TOTAL COMPANY INPUT
1	Acct 759-Handling Expense	EXP759	Page 9, Line 17
2	Acct 775-Miscellaneous Production Exp	EXP775	Page 9, Line 20
3	Acct 777-Lease Expense	EXP777	Page 9, Line 21
4	LNG Gas Prod Labor Accts 781 to 782	LABLM	Pg 19, Ln 21 to 22
5	Acct 781-Maintenance of Struct & Improv	EXP781	Page 9, Line 24
6	Acct 782-Maintenance of Production Eq	EXP782	Page 9, Line 25
7	Total Intangible Plant	INTPLT	Page 2, Line 5
8	Total Production Plant	PRODPLT	Page 2, Line 20
9	Trans & Distr Op Labor Accts 851 to 881	LABDO	Pg 20, Ln 2 to 9
10	Acct 851-Sys Control & Load Dispatch	EXP851	Page 11, Line 2
11	Acct 852-Communication System Exp	EXP852	Page 11, Line 3
12	Acct 857-Measuring & Regul Stat Exp	EXP857	Page 11, Line 4
13	Acct 874-Mains and Services Exp	EXP874	Page 11, Line 5
14	Acct 878-Meter & House Regulator Exp	EXP878	Page 11, Line 6
15	Acct 879-Customer Installations Exp	EXP879	Page 11, Line 7
16	Acct 880-Other Expenses	EXP880	Page 11, Line 8
17	Acct 881-Rents	EXP881	Page 11, Line 9
18	Trans & Distr Maint Lab Accts 851 to 881	LABDM	Pg 20, Ln 12 to 18
19	Acct 886-Maintenance of Struct & Improv	EXP886	Page 11, Line 12
20	Acct 887-Maintenance of Mains	EXP887	Page 11, Line 13
21	Acct 888-Maint of Compressor Station Eq	EXP888	Page 11, Line 14
22	Acct 889-Maint of Meas & Reg Station Eq	EXP889	Page 11, Line 15
23	Acct 892-Maintenance of Services	EXP892	Page 11, Line 16
24	Acct 893-Mnt of Meters and House Regul	EXP893	Page 11, Line 17
25	Acct 894-Maintenance of Other Equip	EXP894	Page 11, Line 18
26	Customer Accts Labor Accts 902 to 903	LABCA	Pg 21, Ln 2 to 3
27	Acct 902-Meter Reading Expenses	EXP902	Page 12, Line 2
28	Acct 903-Cust Records & Collection Exp	EXP903	Page 12, Line 8
29	Sales Expenses Labor Accts 912 to 916	LABSA	Pg 21, Ln 6 to 8
30	Acct 912-Demonstrating & Selling Exp	EXP912	Page 12, Line 28
31	Acct 913-Advertising Exp	EXP913	Page 12, Line 32
32	Acct 916-Miscellaneous Sales Exp	EXP916	Page 12, Line 33
33	Acct 920-Administrative & General Sal	EXP920	Page 13, Line 1
34	Acct 921-Office Supplies & Expenses	EXP921	Page 13, Line 4
35	Acct 922-Administrative Exp Transf-Cr	EXP922	Page 13, Line 5
36	Acct 923-Outside Services Employed	EXP923	Page 13, Line 38
37	Acct 924-Property Insurance	EXP924	Page 13, Line 39
38	Acct 925-Injuries & Damages	EXP925	Page 13, Line 43
39	Acct 926-Employees Pensions & Benef	EXP926	Page 14, Line 4
40	Acct 928-Regulatory Commission Exp	EXP928	Page 14, Line 7

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-30

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Acct 929-Duplicate Charges-Cr	EXP929	0	0	0	0	0	0	0
2 Acct 930-Miscellaneous General Exp	EXP930	863,406	548,785	56,132	61,530	67,587	41,981	41,981
3 Acct 931-Rents	EXP931	3,496,560	2,145,196	280,902	289,072	320,510	133,504	133,504
4 Acct 932-Maintenance of General Plant	EXP932	846,177	518,364	49,525	60,103	76,203	45,501	45,501
5 Total LPG Gas Operating Labor	TLABPO	178,302	115,673	1,164	13,929	22,446	11,252	11,252
6 Total LPG Gas Maintenance Labor	TLABPM	57,587	37,359	376	4,499	7,249	3,634	3,634
7 Total LNG Gas Operating Labor	TLABLO	994,820	645,387	6,497	77,717	125,234	62,781	62,781
8 Total LNG Gas Maintenance Labor	TLABLM	116,542	75,607	761	9,105	14,671	7,355	7,355
9 Total Transm & Distr Operating Labor	TLABDO	10,606,968	6,125,365	549,382	743,527	1,102,434	663,975	663,975
10 Total Transm & Distr Maintenance Labor	TLABDM	4,229,868	2,511,595	194,237	283,994	389,190	289,611	289,611
11 Total Customer Accounts Labor	TLABCA	5,838,988	4,254,370	578,619	437,979	206,428	91,327	91,327
12 Total Sales Expense Labor	TLABSA	205,166	131,506	13,199	11,326	13,228	9,620	9,620
13 Total General Plant	GENPLT	33,883,089	20,756,632	1,983,109	2,406,660	3,051,375	1,821,962	1,821,962
14 Claimed Sales Revenues less Gas Costs	REVCLAIM	175,507,389	111,553,441	11,410,115	12,507,429	13,738,676	8,533,527	8,533,527
15 Sales Expense Accounts 912 to 913	EXP9123	358,013	214,839	15,945	20,423	30,674	23,193	23,193
16 Acct 367 Mains and Acct 380 Services	PLT36780	538,533,185	329,937,906	28,126,955	36,539,041	44,122,475	34,475,991	34,475,991
17 Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	83,726,431	51,038,035	7,860,479	6,798,349	8,017,331	2,354,739	2,354,739
18 Acct 380, 381, 382 & 383 - Serv Met & Reg	PLT3803	312,472,794	217,080,792	32,845,145	24,674,433	14,187,200	7,133,295	7,133,295
19 Transm & Distr Oper Accts 851 to 879	EXP8519	15,871,085	9,165,078	791,170	1,102,812	1,640,899	1,019,966	1,019,966
20 Total Customer Deposits	TOTCDEP	3,090,784	37,964	1,551	1,006,862	935,120	247,259	247,259
21 Acct 386 Other Property on Cust's Prem	PLT386	22,458,288	11,881,733	227,803	1,352,989	2,751,410	2,152,944	2,152,944
22 Total Transmission & Distribution Plant	DISTRPLT	662,036,839	402,020,393	36,390,910	45,733,749	57,012,993	40,643,938	40,643,938
23 Acct 904-Uncollectible Accts-Gas Sales	EXP904S	8,489,829	6,167,180	927,984	848,224	239,145	31,648	31,648
24 Acct 904-Uncollectible Accts-Other Rev	EXP904O	412,767	218,377	4,187	24,867	50,569	39,570	39,570
25 Acct 367-Gas Mains - Bare Steel	PLT367BS	2,554,359	1,351,404	25,910	153,886	312,940	244,871	244,871
26 Acct 367-Gas Mains - Joint Clamping	PLT367JC	20,020,721	10,592,119	203,078	1,206,139	2,452,779	1,919,268	1,919,268
27 Acct 367-Gas Mains - Cast Iron	PLT367CI	5,690,941	3,010,837	57,725	342,848	697,209	545,557	545,557
28 Acct 367-Gas Mains - Cathodic Protect	PLT367CP	8,274,626	4,377,756	83,933	488,501	1,013,741	793,240	793,240
29 Acct 367-Gas Mains - Coated Steel	PLT367CS	146,116,729	77,304,202	1,482,119	8,802,732	17,901,054	14,007,349	14,007,349
30 Acct 367-Gas Mains - Plastic	PLT367P	126,075,826	66,701,405	1,278,837	7,595,377	15,445,803	12,086,146	12,086,146
31 Acct 391-Office Equipment	PLT391OE	5,917,985	3,626,997	326,838	414,728	529,801	332,389	332,389
32 Acct 391-Office IT Equipment	PLT391IT	5,502,374	3,372,279	303,885	385,602	492,594	309,046	309,046
33 Acct 397-Comm Equip MetScan	PLT397M	644,449	392,844	60,503	52,327	61,710	18,125	18,125
34 Acct 397-Comm Equip ERT/ITRON	PLT397E	2,248,171	1,370,442	211,065	182,545	215,277	63,228	63,228
35 Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	367,132	238,176	2,398	26,217	46,217	23,169	23,169
36 Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	1,768,764	1,147,481	11,551	138,179	222,663	111,623	111,623
37 Acct 320 Other Eg-LNG & LPG Dir Csts	PLT320L	753,385	488,757	4,920	58,856	94,841	47,544	47,544
38 Total Gas Operation & Maintenance Labor	OMLAB	23,718,343	14,836,933	1,439,093	1,638,185	2,001,129	1,214,606	1,214,606
39 Inflation Adjustment Residual O&M	OTHOMINF	36,141,958	22,391,999	2,046,433	2,557,241	3,156,590	1,945,600	1,945,600

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 156 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-30		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Act 929-Duplicate Charges-Cr	EXP929	0	0	0	0	0
2	Act 930-Miscellaneous General Exp	EXP930	7,480	12,378	21,441	17,596	28,494
3	Act 931 Rents	EXP931	17,694	74,779	124,353	63,793	66,754
4	Act 932 Maintenance of General Plant	EXP932	8,327	12,627	24,510	19,335	31,681
5	Total LPG Gas Operating Labor	TLABPO	2,519	969	3,258	2,480	4,611
6	Tot LPG Gas Maintenance Labor	TLABPM	814	313	1,052	801	1,489
7	Total LNG Gas Operating Labor	TLABLO	14,054	5,404	18,180	13,836	25,728
8	Tot LNG Gas Maintenance Labor	TLABLM	1,646	633	2,130	1,621	3,014
9	Total Transm & Distr Operating Labor	TLABDO	119,560	170,594	371,140	291,686	469,283
10	Total Transm & Distr Maintenance Labor	TLABDM	55,058	50,416	116,611	121,363	217,782
11	Total Customer Accounts Labor	TLABCA	14,900	86,673	71,028	38,587	59,075
12	Total Sales Expense Labor	TLABSA	2,020	2,288	5,124	5,453	11,402
13	Total General Plant	GENPLT	333,442	505,611	981,438	774,225	1,268,577
14	Claimed Sales Revenues less Gas Costs	REVCLAIM	1,520,567	2,516,064	4,358,376	3,576,860	5,791,979
15	Sales Expense Accounts 912 to 913	EXP9123	4,864	3,647	10,160	11,260	23,008
16	Act 367 Mains and Acct 380 Services	PLT367BS	6,425,813	6,203,261	12,933,537	14,288,172	25,478,826
17	Act 381, 382 & 383 - Meters & Hse Reg	PLT3813	167,390	2,175,857	3,435,233	1,285,854	593,165
18	Act 380,381,382 & 383 - Serv Met & Reg	PLT3803	370,677	5,741,708	5,745,502	3,207,987	1,486,057
19	Transm & Distr Oper Accts 851 to 879	EXP8519	186,201	244,875	543,524	444,787	731,740
20	Total Customer Deposits	TOTCDEP	86,516	244,033	386,375	118,452	16,653
21	Act 386 Other Property on Cust's Prem	PLT386	451,108	191,202	770,144	896,488	1,782,380
22	Total Transmission & Distribution Plant	DISTRPLT	7,392,187	8,717,767	17,732,818	17,161,850	29,228,872
23	Act 904-Uncollectible Accts-Gas Sales	EXP904S	773	169,200	89,546	12,730	3,397
24	Act 904-Uncollectible Accts-Other Rev	EXP904O	8,291	3,514	14,155	16,477	32,759
25	Act 367-Gas Mains - Bare Steel	PLT367BS	51,308	21,747	87,595	101,965	202,724
26	Act 367-Gas Mains - Joint Clamping	PLT367JC	402,146	170,449	686,554	799,185	1,588,925
27	Act 367-Gas Mains - Cast Iron	PLT367CI	114,311	48,451	195,155	227,170	451,856
28	Act 367-Gas Mains - Cathodic Protect	PLT367CP	166,208	70,447	283,755	330,306	656,708
29	Act 367-Gas Mains - Coated Steel	PLT367CS	2,934,970	1,243,984	5,010,662	5,832,673	11,596,414
30	Act 367-Gas Mains - Plastic	PLT367P	2,532,419	1,073,363	4,323,416	5,032,682	10,005,887
31	Act 391-Office Equipment	PLT391OE	62,570	82,197	164,753	139,364	238,336
32	Act 391-Office IT Equipment	PLT391IT	58,176	76,424	153,183	129,577	221,598
33	Act 397-Comm Equip Melscan	PLT397M	1,288	16,748	26,441	9,897	4,566
34	Act 397-Comm Equip ERT/ITRON	PLT397E	4,495	58,425	92,241	34,527	15,927
35	Act 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	5,187	1,994	6,709	5,106	9,495
36	Act 305 SI & Impl-LNG & LPG Dir Csts	PLT305L	24,988	9,609	32,324	24,600	45,744
37	Act 320 Other Eq-LNG & LPG Dir Csts	PLT320L	10,643	4,093	13,768	10,478	19,484
38	Total Gas Operation & Maintenance Labor	OMLAB	223,848	338,823	626,784	506,957	842,946
39	Inflation Adjustment Residual O&M	OTHOMINF	369,390	498,401	966,867	812,185	1,381,189

29-Jun-05 10:27 AM

TOTAL COMPANY
INPUT

ALLOC

INTERNALLY DEVELOPED CONT-30

1	Acct 929-Duplicate Charges-Cr	EXP929	Page 14, Line 8
2	Acct 930-Miscellaneous General Exp	EXP930	Page 14, Line 12
3	Acct 931 Rents	EXP931	Page 14, Line 18
4	Acct 932 Maintenance of General Plant	EXP932	Page 14, Line 22
5	Total LPG Gas Operating Labor	TLABPO	Page 19, Line 5
6	Tot LPG Gas Maintenance Labor	TLABPM	Page 19, Line 9
7	Total LNG Gas Operating Labor	TLABLO	Page 19, Line 17
8	Tot LNG Gas Maintenance Labor	TLABLM	Page 19, Line 21
9	Total Transm & Distr Operating Labor	TLABDO	Page 20, Line 10
10	Total Transm & Distr Maintenance Labor	TLABDM	Page 20, Line 19
11	Total Customer Accounts Labor	TLABCA	Page 21, Line 4
12	Total Sales Expense Labor	TLABSA	Page 21, Line 9
13	Total General Plant	GENPLT	Pg 4, Ln 3 & 17
14	Claimed Sales Revenues less Gas Costs	REVCLAIM	See Allocator Descriptions
15	Sales Expense Accounts 912 to 913	EXP9123	Pg 12, Ln 28 & 32
16	Acct 367 Mains and Acct 380 Services	PLT36780	Pg 3, Ln 11 & 14
17	Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	Pg 3, Line 15, 16 & 17
18	Acct 380,381,382 & 383 - Serv, Met & Reg	PLT3803	Pg 3, Line 14, 15, 16 & 17
19	Transm & Distr Oper Accts 851 to 879	EXP8519	Pg 11, Line 2 to 7
20	Total Customer Deposits	TOTCDEP	Page 7, Line 23
21	Acct 386 Other Property on Cust's Prem	PLT386	Page 3, Line 21
22	Total Transmission & Distribution Plant	DISTRPLT	Page 3, Line 23 & 25
23	Acct 904-Uncollectible Accts-Gas Sales	EXP904S	Pg 12, Line 9 to 19
24	Acct 904-Uncollectible Accts-Other Rev	EXP904O	Page 12, Line 22 & 23
25	Acct 367-Gas Mains - Bare Steel	PLT367BS	Page 3, Line 4
26	Acct 367-Gas Mains - Joint Clamping	PLT367JC	Page 3, Line 5
27	Acct 367-Gas Mains - Cast Iron	PLT367CI	Page 3, Line 6
28	Acct 367-Gas Mains - Cathodic Protect	PLT367CP	Page 3, Line 7
29	Acct 367-Gas Mains - Coated Steel	PLT367CS	Page 3, Line 8
30	Acct 367-Gas Mains - Plastic	PLT367P	Page 3, Line 9
31	Acct 391-Office Equipment	PLT391OE	Page 4, Line 4
32	Acct 391-Office IT Equipment	PLT391IT	Page 4, Line 5
33	Acct 397-Comm Equip MetScan	PLT397M	Page 4, Line 13
34	Acct 397-Comm Equip ERT/JTRON	PLT397E	Page 4, Line 14
35	Acct 304 Lnd Rghts-LNG & LPG Dir Csts	PLT304L	Page 2, Line 6 & 7
36	Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	Page 2, Line 10 & 11
37	Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	Page 2, Line 15 & 16
38	Total Gas Operation & Maintenance Labor	OMLAB	Page 22, Line 15
39	Inflation Adjustment Residual O&M	OTHOMINF	See Allocator Descriptions

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-31		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Total Gas Supply Expense	GASCOSTS	324,558,618	219,829,907	5,529,189	2,336	21,089,132	34,520,005	15,349,723
2	Acct 903-Cust Records & Coll Subtotal	EXP903T	6,522,561	4,707,105	630,563	3	503,043	247,767	112,478
3									
4									
5									
6									
7									
8									
9									
10									
11	<u>NISource Service Charges Allocators</u>								
12	Basis 1 - 50% Gross Plant	BASIS1P	754,551,098	459,546,304	40,473,034	1,513	52,436,776	66,161,719	45,924,428
13	Basis 1 - 50% O&M less Gas & NIS 923	BASIS10M	73,838,274	46,956,219	4,862,132	112	5,557,867	5,792,045	3,384,251
14	Basis 10 - Number of Annual Customers	BASIS10	3,358,808	2,635,699	396,597	143	198,495	55,963	7,406
15	Basis 11 - Labor	BASIS11	28,074,804	17,206,402	1,550,515	53	1,967,460	2,513,367	1,576,848
16	Basis 2 - Gross Plant	BASIS2	754,551,098	459,546,304	40,473,034	1,513	52,436,776	66,161,719	45,924,428
17	Basis 20 - Total Direct Billed	BASIS20	4,524,370	2,840,609	273,963	10	318,446	368,315	236,272
18	Basis 7 - 50% Deprec Plant	BASIS7P	718,484,245	437,447,968	38,512,198	1,445	49,908,478	62,911,913	43,883,902
19	Basis 7 - 50% O&M less NIS 923	BASIS7OM	398,396,892	266,786,125	10,391,321	2,448	26,646,999	40,312,050	18,733,974
20	Basis 9 - Labor	BASIS9	28,074,804	17,206,402	1,550,515	53	1,967,460	2,513,367	1,576,848
21	Basis Co 12 - Oth NISource Serv Chrgs	BASCO12	20,141,561	13,102,042	1,380,124	97	1,394,734	1,455,374	905,981
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 159 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

	ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1 Total Gas Supply Expense	GAS COSTS	3,916,584	3,840,213	11,915,793	5,793,209	2,772,528
2 Acct 903-Cust Records & Coll Subtotal	EXP903T	18,517	98,958	83,648	47,108	73,372
3						
4						
5						
6						
7						
8						
9						
10						
11 <u>NISource Service Charges Allocators</u>						
12 Basis 1 - 50% Gross Plant	BASIS1P	8,428,999	9,839,523	20,122,202	19,092,700	32,523,900
13 Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	619,134	1,112,247	1,823,507	1,408,840	2,321,920
14 Basis 10 - Number of Annual Customers	BASIS10	181	39,595	20,955	2,979	795
15 Basis 11 - Labor	BASIS11	296,832	389,941	781,586	661,139	1,130,661
16 Basis 2 - Gross Plant	BASIS2	8,428,999	9,839,523	20,122,202	19,092,700	32,523,900
17 Basis 20 - Total Direct Billed	BASIS20	43,521	62,357	114,847	98,919	167,111
18 Basis 7 - 50% Deprec Plant	BASIS7P	8,043,705	9,343,829	19,121,463	18,242,538	31,066,806
19 Basis 7 - 50% O&M less NIS 923	BASIS7OM	4,535,718	4,952,460	13,739,299	7,202,049	5,094,448
20 Basis 9 - Labor	BASIS9	296,832	389,941	781,586	661,139	1,130,661
21 Basis Co 12 - Oth NISource Serv Chrgs	BASCO12	165,100	273,677	456,525	378,254	629,652
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

INTERNALLY DEVELOPED CONT-31

29-Jun-05 10:27 AM

ALLOC TOTAL COMPANY INPUT

INTERNALLY DEVELOPED CONT-31

1	Total Gas Supply Expense	GASCOSTS	Page 10 , Line 7
2	Acct 903-Cust Records & Coll Subtotal	EXP903T	Pg 12 , Line 3 to 5
3			
4			
5			
6			
7			
8			
9			
10			
11	<u>NISource Service Charges Allocators</u>		
12	Basis 1 - 50% Gross Plant	BASIS1P	Page 4 , Line 18
13	Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	See Allocator Descriptions
14	Basis 10 - Number of Annual Customers	BASIS10	Page 26 , Line 31
15	Basis 11 - Labor	BASIS11	Page 22 , Line 21
16	Basis 2 - Gross Plant	BASIS2	Page 4 , Line 18
17	Basis 20 - Total Direct Billed	BASIS20	Page 13 , Line 28
18	Basis 7 - 50% Deprec Plant	BASIS7P	See Allocator Descriptions
19	Basis 7 - 50% O&M less NIS 923	BASIS7OM	See Allocator Descriptions
20	Basis 9 - Labor	BASIS9	Page 22 , Line 21
21	Basis Co 12 - Oth NISource Serv Chrgs	BASCO12	Page 13 , Ln 6 to 17 & 28
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05

10:27 AM

INTERNALLY DEVELOPED CONT-32								
	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
REVENUES FROM GAS SALES								
1		478,651,282	323,429,755	10,830,018	2,726	31,946,429	46,870,369	22,321,850
2		122,553,551	90,306,804	5,317,329	479	9,322,851	8,796,996	2,913,844
3		17,846,899	23,420	1,127	0	646,079	3,200,449	4,286,966
4		307,478,651	211,649,336	5,037,827	2,066	20,118,078	31,776,012	13,793,415
5		9,129,632	6,662,418	66,089	7	602,472	924,653	396,525
6		7,118,165	4,941,538	109,207	47	438,488	717,301	324,983
7		(2,307,187)	(1,714,352)	0	0	(250,352)	(253,911)	(82,199)
8		(248,396)	(504)	0	0	(19,193)	(94,414)	(127,701)
9		17,079,967	11,561,095	298,440	127	1,088,006	1,803,283	816,017
10		19,129,611	13,280,067	293,486	125	1,178,409	1,927,700	873,371

REVENUE REQUIREMENT INPUTS

1	Claimed Rate of Return	9.050%		9.050%		9.050%		9.050%
2	Annual Booked Therm Sales	365,949,048	247,703,740	6,394,258	2,728	23,311,210	38,636,479	17,483,688
3	Annual Booked Therm Throughput	493,498,312	247,783,289	6,396,166	2,728	25,211,236	54,160,592	44,135,406
4	Proposed Sales Revenues	500,066,007	331,383,347	16,939,304	2,692	33,596,561	48,258,681	23,883,250
5	Total Annual Bills	3,395,936	2,666,494	400,515	144	200,206	56,195	7,432

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 162 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 163 of 322

29-Jun-05 10:27 AM

ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
REVENUES FROM GAS SALES					
1 Revenues Firm Sales of Gas	4,903,279	5,775,878	15,241,815	9,011,447	8,317,714
2 Annual Base Revenues - Sales Actual	488,932	1,654,681	2,437,223	913,027	401,385
3 Annual Base Rev - Trans Actual	664,767	254,714	1,207,966	2,393,361	5,168,050
4 GAF Direct Revenues	3,381,173	3,503,816	10,545,356	5,181,132	2,490,440
5 Production & Storage Revenues	92,312	71,008	168,782	91,183	54,183
6 GAF Indirect Bad Debt Revenues	82,200	84,141	242,185	121,626	56,450
7 Weather Normalizin Adj Base Rev-Sales	(6,373)	0	0	0	0
8 Weather Normalizin Adj Base Rev-Trans	(6,584)	0	0	0	0
9 GAF Deferred Direct Gas Revenues	206,853	207,518	640,304	311,118	147,207
10 GAF Indirect Revenues	220,906	226,123	650,856	326,863	151,705

INTERNALLY DEVELOPED CONT-32

- 1 Revenues Firm Sales of Gas
- 2 Annual Base Revenues - Sales Actual
- 3 Annual Base Rev - Trans Actual
- 4 GAF Direct Revenues
- 5 Production & Storage Revenues
- 6 GAF Indirect Bad Debt Revenues
- 7 Weather Normalizin Adj Base Rev-Sales
- 8 Weather Normalizin Adj Base Rev-Trans
- 9 GAF Deferred Direct Gas Revenues
- 10 GAF Indirect Revenues

REVENUE REQUIREMENT INPUTS

- 1 Claimed Rate of Return 9.050%
- 2 Annual Booked Therm Sales 4,431,946
- 3 Annual Booked Therm Throughput 9,468,031
- 4 Proposed Sales Revenues 5,437,151
- 5 Total Annual Bills 181

- 1 Claimed Rate of Return 9.050%
- 2 Annual Booked Therm Sales 4,446,204
- 3 Annual Booked Therm Throughput 5,243,986
- 4 Proposed Sales Revenues 6,356,277
- 5 Total Annual Bills 39,908

- 1 Claimed Rate of Return 9.050%
- 2 Annual Booked Therm Sales 6,665,891
- 3 Annual Booked Therm Throughput 25,505,268
- 4 Proposed Sales Revenues 9,370,069
- 5 Total Annual Bills 2,989

- 1 Claimed Rate of Return 9.050%
- 2 Annual Booked Therm Sales 3,153,997
- 3 Annual Booked Therm Throughput 54,222,227
- 4 Proposed Sales Revenues 8,564,507
- 5 Total Annual Bills 799

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

RATIO TABLE-33

CAPACITY RELATED

ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 PRODUCTION ALLOCATORS							
2 Design Day Remaining Demands - Sales	1.00000	0.69669	0.00508	0.00000	0.08528	0.12724	0.04999
3 LPG Production Allocator - Prod Function	1.00000	0.69669	0.00508	0.00000	0.08528	0.12724	0.04999
4 LNG Production Allocator - Prod Function	1.00000	0.69669	0.00508	0.00000	0.08528	0.12724	0.04999
5 LPG & LNG Prod Alloc - Distr Function	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
6 LPG & LNG Distr Pressure Support %	28.6%						
7							
8							
9 PROD-PRESSURE SUPP ALLOC							
10 LPG Prod & Pressure Support Alloc	1.00000	0.64375	0.00653	0.00000	0.07812	0.12589	0.06311
11 LNG Prod & Pressure Support Alloc	1.00000	0.64375	0.00653	0.00000	0.07812	0.12589	0.06311
12							
13 GAS COST ALLOCATORS							
14 Base Demand Gas Costs	1.00000	0.61433	0.04784	0.00003	0.02681	0.05699	0.03264
15 Remaining Demand Gas Costs	1.00000	0.69669	0.00508	0.00000	0.08528	0.12724	0.04999
16							
17							
18							
1 DISTRIBUTION ALLOCATORS							
1 Distribution Allocator	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
2							
3 Pension & PBOP Expense Allocator	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 164 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 165 of 322

29-Jun-05 10:27 AM

RATIO TABLE-33		ALLOC				
CAPACITY RELATED		HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	PRODUCTION ALLOCATORS					
2	Design Day Remaining Demands - Sales	0.01174	0.00420	0.01186	0.00349	0.00443
3	LPG Production Allocator - Prod Function	0.01174	0.00420	0.01186	0.00349	0.00443
4	LNG Production Allocator - Prod Function	0.01174	0.00420	0.01186	0.00349	0.00443
5	LPG & LNG Prod Alloc - Distr Function	0.02009	0.00851	0.03429	0.03992	0.07936
6	LPG & LNG Distr Pressure Support %					
7						
8						
9	PROD-PRESSURE SUPP ALLOC					
10	LPG Prod & Pressure Support Alloc	0.01413	0.00543	0.01828	0.01391	0.02586
11	LNG Prod & Pressure Support Alloc	0.01413	0.00543	0.01828	0.01391	0.02586
12						
13	GAS COST ALLOCATORS					
14	Base Demand Gas Costs	0.01953	0.03106	0.10155	0.05452	0.01469
15	Remaining Demand Gas Costs	0.01174	0.00420	0.01186	0.00349	0.00443
16						
17						
18						
1	DISTRIBUTION ALLOCATORS					
2	Distribution Allocator	0.02009	0.00851	0.03429	0.03992	0.07936
3	Pension & PBOP Expense Allocator	0.00866	0.01434	0.02483	0.02038	0.03300
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

RATIO TABLE CONT-34	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
COMMODITY RELATED								
1 Base Commodity Gas Costs	EBASE	1.00000	0.61477	0.04788	0.00003	0.02673	0.05719	0.03260
2 Remaining Commodity Gas Costs	EREMAIN	1.00000	0.70111	0.00589	0.00000	0.07750	0.12371	0.06333
3								
4								
5								
6								
7 Annual Therm Firm Sales Sendout		1.00000	0.67688	0.01747	0.00001	0.06370	0.10558	0.04778
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 166 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05

10:27 AM

RATIO TABLE CONT-34		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
COMMODITY RELATED							
1	Base Commodity Gas Costs	EBASE	0.01953	0.03104	0.10163	0.05395	0.01467
2	Remaining Commodity Gas Costs	EREMAIN	0.00876	0.00493	0.01317	0.00487	0.00674
3							
4							
5							
6							
7	Annual Therm Firm Sales Sendout		0.01211	0.01215	0.03749	0.01822	0.00862
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-06 10:27 AM

RATIO TABLE CONT-35		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
CUSTOMER RELATED									
1	Acct 380 Gas Services	CUST380	1.00000	0.72588	0.10922	0.00000	0.07815	0.02897	0.02089
2	Acct 381 Gas Meters	CUST381	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
3	Acct 382 Meter Installations	CUST382	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
4	Acct 383 Gas Regulators	CUST383	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
5	Customer Deposits	CUSTDEP	1.00000	0.01269	0.00007	0.00000	0.36215	0.29593	0.06925
6	Transportation Customers	CUSTTR	1.00000	0.01131	0.00152	0.00000	0.23929	0.31829	0.10555
7	Acct 386.0 Gas Water Heaters	CUST3860	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
8	Acct 386.2 Cascade Diamond Boilers	CUST3862	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
9	Acct 386.3 Conversion Burners	CUST3863	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
10	Acct 487-Retain Check Charges	CUST487	1.00000	0.73673	0.04420	0.00000	0.07546	0.07106	0.02354
11	Acct 488-Rental Rev-W/H & Conv Burn	CUST488	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
12	Acct 882-Revenue Guardian Care & C/S	CUST882	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
13	Acct 902 Meter Reading Expense	CUST902	1.00000	0.77718	0.11664	0.00000	0.06001	0.01662	0.00437
14	Acct 903-Cust Records & Collection Exp	CUST903	1.00000	0.79072	0.11178	0.00000	0.05937	0.01666	0.00220
15	Acct 912-Demonstrating & Selling Exp	CUST912	1.00000	0.64342	0.06552	0.00000	0.05509	0.06321	0.04582
16	Acct 913-Advertising Expense	CUST913	1.00000	0.64342	0.06552	0.00000	0.05509	0.06321	0.04582
17	Acct 879-Customer Installations Exp	CUST879	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
18	Acct 903 Collections Expense	CUST903C	1.00000	0.71506	0.10360	0.00000	0.09763	0.03360	0.00903

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 168 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

RATIO TABLE CONT-35		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
CUSTOMER RELATED							
1	Acct 380 Gas Services	CUST380	0.00089	0.01559	0.01010	0.00840	0.00390
2	Acct 381 Gas Meters	CUST381	0.00200	0.02599	0.04103	0.01536	0.00708
3	Acct 382 Meter Installations	CUST382	0.00200	0.02599	0.04103	0.01536	0.00708
4	Acct 383 Gas Regulators	CUST383	0.00200	0.02599	0.04103	0.01536	0.00708
5	Customer Deposits	CUSTDEP	0.03847	0.06822	0.11925	0.03397	0.00000
6	Transportation Customers	CUSTTR	0.00309	0.10447	0.14961	0.04868	0.01819
7	Acct 386.0 Gas Water Heaters	CUST3860	0.02009	0.00851	0.03429	0.03992	0.07936
8	Acct 386.2 Cascade Diamond Boilers	CUST3862	0.02009	0.00851	0.03429	0.03992	0.07936
9	Acct 386.3 Conversion Burners	CUST3863	0.02009	0.00851	0.03429	0.03992	0.07936
10	Acct 487-Retain Check Charges	CUST487	0.00400	0.01377	0.02026	0.00761	0.00335
11	Acct 488-Rental Rev-W/H & Conv Burn	CUST488	0.02009	0.00851	0.03429	0.03992	0.07936
12	Acct 882-Revenue Guardian Care & C/S	CUST882	0.02009	0.00851	0.03429	0.03992	0.07936
13	Acct 902-Meter Reading Expense	CUST902	0.00054	0.01256	0.00755	0.00234	0.00219
14	Acct 903-Cust Records & Collection Exp	CUST903	0.00005	0.01183	0.00625	0.00089	0.00024
15	Acct 912-Demonstrating & Selling Exp	CUST912	0.00962	0.01121	0.02477	0.02628	0.05506
16	Acct 913-Advertising Expense	CUST913	0.00962	0.01121	0.02477	0.02628	0.05506
17	Acct 879-Customer Installations Exp	CUST879	0.02009	0.00851	0.03429	0.03992	0.07936
18	Acct 903 Collections Expense	CUST903C	0.00124	0.01927	0.01191	0.00371	0.00495

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

RATIO TABLE CONT-36

INTERNALLY DEVELOPED

UNCOLLECTIBLE ACCOUNTS

	ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Residential Heating Rate R-3 & R-4	C904R3	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2 Residential Non-Heating Rate R-1 & R-2	C904R1	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000
3 Outdoor Lighting	C904OL	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000
4 High Winter Low Annual Rate G40 & T40	C904R40	1.00000	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000
5 High Winter Med Annual Rate G41 & T41	C904R41	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000
6 High Winter High Annual Rate G42 & T42	C904R42	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000
7 High Wint Large Annual Rate G43 & T43	C904R43	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8 Low Winter Low Annual Rate G50 & T50	C904R50	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9 Low Winter Med Annual Rate G51 & T51	C904T51	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10 Low Winter High Annual Rate G52 & T52	C904R52	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11 Low Wint Large Annual Rate G53 & T53	C904R53	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

LATE PAYMENT CHARGES

15 High Winter Low Annual Rate G40 & T40	C487R40	1.00000	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000
16 High Winter Med Annual Rate G41 & T41	C487R41	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000
17 High Winter High Annual Rate G42 & T42	C487R42	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000
18 High Wint Large Annual Rate G43 & T43	C487R43	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19 Low Winter Low Annual Rate G50 & T50	C487R50	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20 Low Winter Med Annual Rate G51 & T51	C487T51	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21 Low Winter High Annual Rate G52 & T52	C487R52	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22 Low Wint Large Annual Rate G53 & T53	C487R53	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 170 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

RATIO TABLE CONT-36		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
INTERNALLY DEVELOPED							
UNCOLLECTIBLE ACCOUNTS							
1	Residential Heating Rate R-3 & R-4	C904R3	0.00000	0.00000	0.00000	0.00000	0.00000
2	Residential Non-Heating Rate R-1 & R-2	C904R1	0.00000	0.00000	0.00000	0.00000	0.00000
3	Outdoor Lighting	C904OL	0.00000	0.00000	0.00000	0.00000	0.00000
4	High Winter Low Annual Rate G40 & T40	C904R40	0.00000	0.00000	0.00000	0.00000	0.00000
5	High Winter Med Annual Rate G41 & T41	C904R41	0.00000	0.00000	0.00000	0.00000	0.00000
6	High Winter High Annual Rate G42 & T42	C904R42	0.00000	0.00000	0.00000	0.00000	0.00000
7	High Wint Large Annual Rate G43 & T43	C904R43	1.00000	0.00000	0.00000	0.00000	0.00000
8	Low Winter Low Annual Rate G50 & T50	C904R50	0.00000	1.00000	0.00000	0.00000	0.00000
9	Low Winter Med Annual Rate G51 & T51	C904T51	0.00000	0.00000	1.00000	0.00000	0.00000
10	Low Winter High Annual Rate G52 & T52	C904R52	0.00000	0.00000	0.00000	1.00000	0.00000
11	Low Wint Large Annual Rate G53 & T53	C904R53	0.00000	0.00000	0.00000	0.00000	1.00000
12							
13	LATE PAYMENT CHARGES						
14							
15	High Winter Low Annual Rate G40 & T40	C487R40	0.00000	0.00000	0.00000	0.00000	0.00000
16	High Winter Med Annual Rate G41 & T41	C487R41	0.00000	0.00000	0.00000	0.00000	0.00000
17	High Winter High Annual Rate G42 & T42	C487R42	0.00000	0.00000	0.00000	0.00000	0.00000
18	High Wint Large Annual Rate G43 & T43	C487R43	1.00000	0.00000	0.00000	0.00000	0.00000
19	Low Winter Low Annual Rate G50 & T50	C487R50	0.00000	1.00000	0.00000	0.00000	0.00000
20	Low Winter Med Annual Rate G51 & T51	C487T51	0.00000	0.00000	1.00000	0.00000	0.00000
21	Low Winter High Annual Rate G52 & T52	C487R52	0.00000	0.00000	0.00000	1.00000	0.00000
22	Low Wint Large Annual Rate G53 & T53	C487R53	0.00000	0.00000	0.00000	0.00000	1.00000
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							

29-Jun-05 10:27 AM

RATIO TABLE CONT-36		ALLOC	TOTAL COMPANY INPUT
INTERNALLY DEVELOPED			
UNCOLLECTIBLE ACCOUNTS			
1	Residential Heating Rate R-3 & R-4	C904R3	Page 23, Line 10, Col 2
2	Residential Non-Heating Rate R-1 & R-2	C904R1	Page 23, Line 10, Col 3
3	Outdoor Lighting	C904OL	Page 23, Line 10, Col 4
4	High Winter Low Annual Rate G40 & T40	C904R40	Page 23, Line 10, Col 5
5	High Winter Med Annual Rate G41 & T41	C904R41	Page 23, Line 10, Col 6
6	High Winter High Annual Rate G42 & T42	C904R42	Page 23, Line 10, Col 7
7	High Wint Large Annual Rate G43 & T43	C904R43	Page 23, Line 10, Col 8
8	Low Winter Low Annual Rate G50 & T50	C904R50	Page 23, Line 10, Col 9
9	Low Winter Med Annual Rate G51 & T51	C904T51	Page 23, Line 10, Col 10
10	Low Winter High Annual Rate G52 & T52	C904R52	Page 23, Line 10, Col 11
11	Low Wint Large Annual Rate G53 & T53	C904R53	Page 23, Line 10, Col 12
12			
13	LATE PAYMENT CHARGES		
14			
15	High Winter Low Annual Rate G40 & T40	C487R40	Page 23, Line 10, Col 5
16	High Winter Med Annual Rate G41 & T41	C487R41	Page 23, Line 10, Col 6
17	High Winter High Annual Rate G42 & T42	C487R42	Page 23, Line 10, Col 7
18	High Wint Large Annual Rate G43 & T43	C487R43	Page 23, Line 10, Col 8
19	Low Winter Low Annual Rate G50 & T50	C487R50	Page 23, Line 10, Col 9
20	Low Winter Med Annual Rate G51 & T51	C487T51	Page 23, Line 10, Col 10
21	Low Winter High Annual Rate G52 & T52	C487R52	Page 23, Line 10, Col 11
22	Low Wint Large Annual Rate G53 & T53	C487R53	Page 23, Line 10, Col 12
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Attachment AG-22-44

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED-37

ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1 Total Gas Plant In Service	1.00000	0.60903	0.05364	0.00000	0.06949	0.08768	0.06086
2 Sum of Allocated Labor Expense	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
3 Acct 301 Organization	1.00000	0.60903	0.05364	0.00000	0.06949	0.08768	0.06086
4 Acct 303 Misc. Intangible Plant	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
5 Acct 305 Structures & Improvements	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
6 Acct 311 L.P. Gas Equipment	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
7 Acct 320 Other Equipment	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
8 Acct 321 L.N.G. Equipment	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
9 Acct 365 Right of Way	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
10 Acct 366 Structures & Improvements	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
11 Acct 367 Gas Mains	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
12 Acct 368 Compressor Station Equipment	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
13 Acct 369 Meas. & Reg. Station Equip	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
14 Acct 380 Gas Services	1.00000	0.72588	0.10922	0.00000	0.07815	0.02697	0.02089
15 Acct 381 Gas Meters	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
16 Acct 382 Meter Installations	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
17 Acct 383 Gas Regulators	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
18 Acct 386 Gas Water Heaters	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
19 Acct 386 Cascade Diamond Boilers	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
20 Acct 386 Conversion Burners	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
21 Acct 387 Other Equipment	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
22 Acct 379 Other Equipment	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
23 Acct 390 Structures & Improvements	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
24 Acct 391 Office Equipment	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
25 Acct 392 Transportation Equipment	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
26 Acct 393 Stores Equipment	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
27 Acct 394 Tools, Shop & Garage Equip	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
28 Acct 396 Power Operated Equipment	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
29 Acct 397 Communication Equip.-Other	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
30 Acct 398 Miscellaneous Equipment	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
31 LPG Gas Prod Labor Accts 717 to 735	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
32 Acct 717-LPG Gas Expenses	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
33 Acct 719-Handling Expense	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
34 Acct 735-Miscellaneous Production Exp	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
35 LPG Gas Prod Labor Accts 741 to 742	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
36 Acct 741-Maintenance of Struct & Improv	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
37 Acct 742-Maintenance of Production Eq	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
38 LNG Gas Prod Labor Accts 754 to 777	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
39 Acct 754-Liquefaction Expense	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311
40 Acct 757-Vaporization Expense	1.00000	0.64875	0.06653	0.00000	0.07812	0.12589	0.06311

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 173 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED-37		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Total Gas Plant In Service	PLANT	0.01117	0.01304	0.02667	0.02530	0.04310
2	Sum of Allocated Labor Expense	LABOR	0.01057	0.01389	0.02784	0.02355	0.04027
3	Acct 301 Organization	PLT301	0.01117	0.01304	0.02667	0.02530	0.04310
4	Acct 303 Misc. Intangible Plant	PLT303	0.01057	0.01389	0.02784	0.02355	0.04027
5	Acct 305 Structures & Improvements	PLT305	0.01413	0.00543	0.01828	0.01391	0.02586
6	Acct 311 L.P. Gas Equipment	PLT311	0.01413	0.00543	0.01828	0.01391	0.02586
7	Acct 320 Other Equipment	PLT320	0.01413	0.00543	0.01828	0.01391	0.02586
8	Acct 321 L.N.G. Equipment	PLT321	0.01413	0.00543	0.01828	0.01391	0.02586
9	Acct 365 Right of Way	PLT365	0.02009	0.00851	0.03429	0.03992	0.07936
10	Acct 366 Structures & Improvements	PLT366	0.02009	0.00851	0.03429	0.03992	0.07936
11	Acct 367 Gas Mains	PLT367	0.02009	0.00851	0.03429	0.03992	0.07936
12	Acct 368 Compressor Station Equipment	PLT368	0.02009	0.00851	0.03429	0.03992	0.07936
13	Acct 369 Meas. & Reg. Station Equip	PLT369	0.02009	0.00851	0.03429	0.03992	0.07936
14	Acct 380 Gas Services	PLT380	0.00089	0.01559	0.01010	0.00840	0.00390
15	Acct 381 Gas Meters	PLT381	0.00200	0.02599	0.04103	0.01536	0.00708
16	Acct 382 Meter Installations	PLT382	0.00200	0.02599	0.04103	0.01536	0.00708
17	Acct 383 Gas Regulators	PLT383	0.00200	0.00851	0.03429	0.03992	0.07936
18	Acct 386 Gas Water Heaters	PLT3860	0.02009	0.00851	0.03429	0.03992	0.07936
19	Acct 386 Cascade Diamond Boilers	PLT3862	0.02009	0.00851	0.03429	0.03992	0.07936
20	Acct 386 Conversion Burners	PLT3863	0.02009	0.00851	0.03429	0.03992	0.07936
21	Acct 387 Other Equipment	PLT387	0.02009	0.00851	0.03429	0.03992	0.07936
22	Acct 379 Other Equipment	PLT379	0.02009	0.00851	0.03429	0.03992	0.07936
23	Acct 390 Structures & Improvements	PLT390	0.01057	0.01389	0.02784	0.02355	0.04027
24	Acct 391 Office Equipment	PLT391	0.01057	0.01389	0.02784	0.02355	0.04027
25	Acct 392 Transportation Equipment	PLT392	0.01057	0.01389	0.02784	0.02355	0.04027
26	Acct 393 Stores Equipment	PLT393	0.01057	0.01389	0.02784	0.02355	0.04027
27	Acct 394 Tools, Shop & Garage Equip	PLT394	0.01057	0.01389	0.02784	0.02355	0.04027
28	Acct 396 Power Operated Equipment	PLT396	0.01057	0.01389	0.02784	0.02355	0.04027
29	Acct 397 Communication Equip.-Other	PLT397O	0.01057	0.01389	0.02784	0.02355	0.04027
30	Acct 398 Miscellaneous Equipment	PLT398	0.01057	0.01389	0.02784	0.02355	0.04027
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	0.01413	0.00543	0.01828	0.01391	0.02586
32	Acct 717-LPG Gas Expenses	EXP717	0.01413	0.00543	0.01828	0.01391	0.02586
33	Acct 719-Handling Expense	EXP719	0.01413	0.00543	0.01828	0.01391	0.02586
34	Acct 735-Miscellaneous Production Exp	EXP735	0.01413	0.00543	0.01828	0.01391	0.02586
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	0.01413	0.00543	0.01828	0.01391	0.02586
36	Acct 741-Maintenance of Struct & Improv	EXP741	0.01413	0.00543	0.01828	0.01391	0.02586
37	Acct 742-Maintenance of Production Eq	EXP742	0.01413	0.00543	0.01828	0.01391	0.02586
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	0.01413	0.00543	0.01828	0.01391	0.02586
39	Acct 754-Liquefaction Expense	EXP754	0.01413	0.00543	0.01828	0.01391	0.02586
40	Acct 757-Vaporization Expense	EXP757	0.01413	0.00543	0.01828	0.01391	0.02586

29-Jun-05 10:27 AM

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 175 of 322

INTERNALLY DEVELOPED-37		ALLOC	TOTAL COMPANY INPUT
1	Total Gas Plant In Service	PLANT	Page 4, Line 18
2	Sum of Allocated Labor Expense	LABOR	Page 22, Line 21
3	Acct 301 Organization	PLT301	Page 2, Line 3
4	Acct 303 Misc. Intangible Plant	PLT303	Page 2, Line 4
5	Acct 305 Structures & Improvements	PLT305	Page 2, Line 13
6	Acct 311 L.P. Gas Equipment	PLT311	Page 2, Line 14
7	Acct 320 Other Equipment	PLT320	Page 2, Line 18
8	Acct 321 L.N.G. Equipment	PLT321	Page 2, Line 19
9	Acct 365 Right of Way	PLT365	Page 3, Line 2
10	Acct 366 Structures & Improvements	PLT366	Page 3, Line 3
11	Acct 367 Gas Mains	PLT367	Page 3, Line 11
12	Acct 368 Compressor Station Equipment	PLT368	Page 3, Line 12
13	Acct 369 Meas. & Reg. Station Equip	PLT369	Page 3, Line 13
14	Acct 380 Gas Services	PLT380	Page 3, Line 14
15	Acct 381 Gas Meters	PLT381	Page 3, Line 15
16	Acct 382 Meter Installations	PLT382	Page 3, Line 16
17	Acct 383 Gas Regulators	PLT383	Page 3, Line 17
18	Acct 386 Gas Water Heaters	PLT3860	Page 3, Line 18
19	Acct 386 Cascade Diamond Boilers	PLT3862	Page 3, Line 19
20	Acct 386 Conversion Burners	PLT3863	Page 3, Line 20
21	Acct 387 Other Equipment	PLT387	Page 3, Line 22
22	Acct 379 Other Equipment	PLT379	Page 3, Line 24
23	Acct 390 Structures & Improvements	PLT390	Page 4, Line 2
24	Acct 391 Office Equipment	PLT391	Page 4, Line 6
25	Acct 392 Transportation Equipment	PLT392	Page 4, Line 7
26	Acct 393 Stores Equipment	PLT393	Page 4, Line 8
27	Acct 394 Tools, Shop & Garage Equip	PLT394	Page 4, Line 9
28	Acct 396 Power Operated Equipment	PLT396	Page 4, Line 10
29	Acct 397 Communication Equip-Other	PLT397O	Page 4, Line 11 & 12
30	Acct 398 Miscellaneous Equipment	PLT398	Page 4, Line 16
31	LPG Gas Prod Labor Accts 717 to 735	LABPO	Pg 19, Ln 2 to 4
32	Acct 717-LPG Gas Expenses	EXP717	Page 9, Line 2
33	Acct 719-Handling Expense	EXP719	Page 9, Line 3
34	Acct 735-Miscellaneous Production Exp	EXP735	Page 9, Line 6
35	LPG Gas Prod Labor Accts 741 to 742	LABPM	Pg 19, Ln 9 to 10
36	Acct 741-Maintenance of Struct & Improv	EXP741	Page 9, Line 9
37	Acct 742-Maintenance of Production Eq	EXP742	Page 9, Line 10
38	LNG Gas Prod Labor Accts 754 to 777	LABLO	Pg 19, Ln 14 to 18
39	Acct 754-Liquefaction Expense	EXP754	Page 9, Line 14
40	Acct 757-Vaporization Expense	EXP757	Page 9, Line 15

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-38		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Act 759-Handling Expense	EXP759	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
2	Act 775-Miscellaneous Production Exp	EXP775	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
3	Act 777-Lease Expense	EXP777	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
4	LNG Gas Prod Labor Accts 781 to 782	LABLM	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
5	Act 781-Maintenance of Struct & Improv	EXP781	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
6	Act 782-Maintenance of Production Eq	EXP782	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
7	Total Intangible Plant	INTPLT	1.00000	0.61280	0.05520	0.00000	0.07007	0.08949	0.05626
8	Total Production Plant	PRODPLT	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
9	Trans & Distr Op Labor Accts 851 to 881	LABDO	1.00000	0.57749	0.05179	0.00000	0.07010	0.10393	0.06260
10	Act 851-Sys Control & Load Dispatch	EXP851	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11	Act 852-Communication System Exp	EXP852	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
12	Act 857-Measuring & Regul Stat Exp	EXP857	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
13	Act 874-Mains and Services Exp	EXP874	1.00000	0.61266	0.05223	0.00000	0.06785	0.08193	0.06402
14	Act 878-Meter & House Regulator Exp	EXP878	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
15	Act 879-Customer Installations Exp	EXP879	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
16	Act 880-Other Expenses	EXP880	1.00000	0.57747	0.04985	0.00000	0.06949	0.10339	0.06427
17	Act 881-Rents	EXP881	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
18	Trans & Distr Maint Lab Accts 851 to 881	LABDM	1.00000	0.59378	0.04592	0.00000	0.06714	0.09201	0.06847
19	Act 886-Maintenance of Struct & Improv	EXP886	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
20	Act 887-Maintenance of Mains	EXP887	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
21	Act 888-Maint of Compressor Station Eq	EXP888	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	Act 889-Maint of Meas & Reg Station Eq	EXP889	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
23	Act 892-Maintenance of Services	EXP892	1.00000	0.72588	0.10922	0.00000	0.07815	0.02897	0.02089
24	Act 893-Mnt of Meters and House Regul	EXP893	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
25	Act 894-Maintenance of Other Equip	EXP894	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
26	Customer Accts Labor Accts 902 to 903	LABCA	1.00000	0.72861	0.09910	0.00000	0.07501	0.03535	0.01564
27	Act 902-Meter Reading Expenses	EXP902	1.00000	0.77718	0.11664	0.00000	0.06001	0.01662	0.00437
28	Act 903-Cust Records & Collection Exp	EXP903	1.00000	0.72229	0.09681	0.00000	0.07696	0.03779	0.01711
29	Sales Expenses Labor Accts 912 to 916	LABSA	1.00000	0.64097	0.06434	0.00000	0.05520	0.06448	0.04689
30	Act 912-Demonstrating & Selling Exp	EXP912	1.00000	0.64342	0.06552	0.00000	0.05509	0.06321	0.04582
31	Act 913-Advertising Exp	EXP913	1.00000	0.56521	0.02765	0.00000	0.05862	0.10376	0.08004
32	Act 916-Miscellaneous Sales Exp	EXP916	1.00000	0.60009	0.04454	0.00000	0.05705	0.08568	0.06478
33	Act 920-Administrative & General Sal	EXP920	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
34	Act 921-Office Supplies & Expenses	EXP921	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
35	Act 922-Administrative Exp Transf-Cr	EXP922	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
36	Act 923-Outside Services Employed	EXP923	1.00000	0.64782	0.06339	0.00000	0.06871	0.07610	0.04689
37	Act 924-Property Insurance	EXP924	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
38	Act 925-Injuries & Damages	EXP925	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
39	Act 926-Employees Pensions & Benef	EXP926	1.00000	0.62059	0.05855	0.00000	0.07048	0.08571	0.06360
40	Act 928-Regulatory Commission Exp	EXP928	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 176 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 177 of 322

INTERNALLY DEVELOPED CONT-38		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Act 759-Handling Expense	EXP759	0.01413	0.00543	0.01828	0.01391	0.02586
2	Act 775-Miscellaneous Production Exp	EXP775	0.01413	0.00543	0.01828	0.01391	0.02586
3	Act 777-Lease Expense	EXP777	0.01413	0.00543	0.01828	0.01391	0.02586
4	LNG Gas Prod Labor Accts 781 to 782	LABLM	0.01413	0.00543	0.01828	0.01391	0.02586
5	Act 781-Maintenance of Struct & Improv	EXP781	0.01413	0.00543	0.01828	0.01391	0.02586
6	Act 782-Maintenance of Production Eq	EXP782	0.01413	0.00543	0.01828	0.01391	0.02586
7	Total Intangible Plant	INTPLT	0.01058	0.01387	0.02782	0.02358	0.04033
8	Total Production Plant	PRODPLT	0.01413	0.00543	0.01828	0.01391	0.02586
9	Trans & Distr Op Labor Accts 851 to 881	LABDO	0.01127	0.01608	0.03499	0.02750	0.04424
10	Act 851-Sys Control & Load Dispatch	EXP851	0.00000	0.00000	0.00000	0.00000	0.00000
11	Act 852-Communication System Exp	EXP852	0.02009	0.00851	0.03429	0.03992	0.07936
12	Act 857-Measuring & Regul Stat Exp	EXP857	0.02009	0.00851	0.03429	0.03992	0.07936
13	Act 874-Mains and Services Exp	EXP874	0.01193	0.01152	0.02402	0.02653	0.04731
14	Act 878-Meter & House Regulator Exp	EXP878	0.00200	0.02599	0.04103	0.01536	0.00708
15	Act 879-Customer Installations Exp	EXP879	0.02009	0.00851	0.03429	0.03992	0.07936
16	Act 880-Other Expenses	EXP880	0.01173	0.01543	0.03425	0.02802	0.04611
17	Act 881-Rents	EXP881	0.02009	0.00851	0.03429	0.03992	0.07936
18	Trans & Distr Maint Lab Accts 851 to 881	LABDM	0.01302	0.01192	0.02757	0.02869	0.05149
19	Act 886-Maintenance of Struct & Improv	EXP886	0.02009	0.00851	0.03429	0.03992	0.07936
20	Act 887-Maintenance of Mains	EXP887	0.02009	0.00851	0.03429	0.03992	0.07936
21	Act 888-Maint of Compressor Station Eq	EXP888	0.00000	0.00000	0.00000	0.00000	0.00000
22	Act 889-Maint of Meas & Reg Station Eq	EXP889	0.02009	0.00851	0.03429	0.03992	0.07936
23	Act 892-Maintenance of Services	EXP892	0.00089	0.01559	0.01010	0.00840	0.00390
24	Act 893-Mnt of Meters and House Regul	EXP893	0.00200	0.02599	0.04103	0.01536	0.00708
25	Act 894-Maintenance of Other Equip	EXP894	0.02009	0.00851	0.03429	0.03992	0.07936
26	Customer Accts Labor Accts 902 to 903	LABCA	0.00255	0.01484	0.01216	0.00661	0.01012
27	Act 902-Meter Reading Expenses	EXP902	0.00054	0.01256	0.00755	0.00234	0.00219
28	Act 903-Cust Records & Collection Exp	EXP903	0.00281	0.01514	0.01276	0.00716	0.01115
29	Sales Expenses Labor Accts 912 to 916	LABSA	0.00984	0.01115	0.02497	0.02658	0.05558
30	Act 912-Demonstrating & Selling Exp	EXP912	0.00962	0.01121	0.02477	0.02628	0.05506
31	Act 913-Advertising Exp	EXP913	0.01678	0.00937	0.03128	0.03561	0.07168
32	Act 916-Miscellaneous Sales Exp	EXP916	0.01359	0.01019	0.02838	0.03145	0.06427
33	Act 920-Administrative & General Sal	EXP920	0.00866	0.01434	0.02483	0.02038	0.03300
34	Act 921-Office Supplies & Expenses	EXP921	0.00866	0.01434	0.02483	0.02038	0.03300
35	Act 922-Administrative Exp Transf-Cr	EXP922	0.00866	0.01434	0.02483	0.02038	0.03300
36	Act 923-Outside Services Employed	EXP923	0.00884	0.01332	0.02394	0.01946	0.03153
37	Act 924-Property Insurance	EXP924	0.00000	0.00000	0.00000	0.00000	0.00000
38	Act 925-Injuries & Damages	EXP925	0.00866	0.01434	0.02483	0.02038	0.03300
39	Act 926-Employees Pensions & Benef	EXP926	0.00992	0.01404	0.02682	0.02247	0.03780
40	Act 928-Regulatory Commission Exp	EXP928	0.00866	0.01434	0.02483	0.02038	0.03300

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-38		ALLOC	TOTAL COMPANY INPUT
1	Acct 759-Handling Expense	EXP759	Page 9, Line 17
2	Acct 775-Miscellaneous Production Exp	EXP775	Page 9, Line 20
3	Acct 777-Lease Expense	EXP777	Page 9, Line 21
4	LNG Gas Prod Labor Accts 781 to 782	LABLM	Pg 19, Ln 21 to 22
5	Acct 781-Maintenance of Struct & Improv	EXP781	Page 9, Line 24
6	Acct 782-Maintenance of Production Eq	EXP782	Page 9, Line 25
7	Total Intangible Plant	INTPLT	Page 2, Line 5
8	Total Production Plant	PRODPLT	Page 2, Line 20
9	Trans & Distr Op Labor Accts 851 to 881	LABDO	Pg 20, Ln 2 to 9
10	Acct 851-Sys Control & Load Dispatch	EXP851	Page 11, Line 2
11	Acct 852-Communication System Exp	EXP852	Page 11, Line 3
12	Acct 857-Measuring & Regul Stat Exp	EXP857	Page 11, Line 4
13	Acct 874-Mains and Services Exp	EXP874	Page 11, Line 5
14	Acct 878-Meter & House Regulator Exp	EXP878	Page 11, Line 6
15	Acct 879-Customer Installations Exp	EXP879	Page 11, Line 7
16	Acct 880-Other Expenses	EXP880	Page 11, Line 8
17	Acct 881-Rents	EXP881	Page 11, Line 9
18	Trans & Distr Maint Lab Accts 851 to 881	LABDM	Pg 20, Ln 12 to 18
19	Acct 886-Maintenance of Struct & Improv	EXP886	Page 11, Line 12
20	Acct 887-Maintenance of Mains	EXP887	Page 11, Line 13
21	Acct 888-Maint of Compressor Station Eq	EXP888	Page 11, Line 14
22	Acct 889-Maint of Meas & Reg Station Eq	EXP889	Page 11, Line 15
23	Acct 892-Maintenance of Services	EXP892	Page 11, Line 16
24	Acct 893-Mnt of Meters and House Regul	EXP893	Page 11, Line 17
25	Acct 894-Maintenance of Other Equip	EXP894	Page 11, Line 18
26	Customer Accts Labor Accts 902 to 903	LABCA	Pg 21, Ln 2 to 3
27	Acct 902-Meter Reading Expenses	EXP902	Page 12, Line 2
28	Acct 903-Cust Records & Collection Exp	EXP903	Page 12, Line 8
29	Sales Expenses Labor Accts 912 to 916	LABSA	Pg 21, Ln 6 to 8
30	Acct 912-Demonstrating & Selling Exp	EXP912	Page 12, Line 28
31	Acct 913-Advertising Exp	EXP913	Page 12, Line 32
32	Acct 916-Miscellaneous Sales Exp	EXP916	Page 12, Line 33
33	Acct 920-Administrative & General Sal	EXP920	Page 13, Line 1
34	Acct 921-Office Supplies & Expenses	EXP921	Page 13, Line 4
35	Acct 922-Administrative Exp Transf-Cr	EXP922	Page 13, Line 5
36	Acct 923-Outside Services Employed	EXP923	Page 13, Line 38
37	Acct 924-Property Insurance	EXP924	Page 13, Line 39
38	Acct 925-Injuries & Damages	EXP925	Page 13, Line 43
39	Acct 926-Employees Pensions & Benef	EXP926	Page 14, Line 4
40	Acct 928-Regulatory Commission Exp	EXP928	Page 14, Line 7

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-39		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Acct 929-Duplicate Charges-Cr	EXP929	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	Acct 930-Miscellaneous General Exp	EXP930	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
3	Acct 931-Rents	EXP931	1.00000	0.61352	0.08034	0.00000	0.07695	0.09166	0.03818
4	Acct 932 Maintenance of General Plant	EXP932	1.00000	0.61260	0.05853	0.00000	0.07103	0.09006	0.05377
5	Total LPG Gas Operating Labor	TLABPO	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
6	Tot LPG Gas Maintenance Labor	TLABPM	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
7	Total LNG Gas Operating Labor	TLABLO	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
8	Tot LNG Gas Maintenance Labor	TLABLM	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
9	Total Transm & Distr Operating Labor	TLABDO	1.00000	0.57749	0.05179	0.00000	0.07010	0.10393	0.06260
10	Total Transm & Distr Maintenance Labor	TLABDM	1.00000	0.59378	0.04592	0.00000	0.06714	0.09201	0.06847
11	Total Customer Accounts Labor	TLABCA	1.00000	0.72861	0.09910	0.00000	0.07501	0.03535	0.01564
12	Total Sales Expense Labor	TLABSA	1.00000	0.64097	0.06434	0.00000	0.05520	0.06448	0.04689
13	Total General Plant	GENPLT	1.00000	0.61260	0.05853	0.00000	0.07103	0.09006	0.05377
14	Claimed Sales Revenues less Gas Costs	REVCLAIM	1.00000	0.63561	0.06501	0.00000	0.07126	0.07828	0.04862
15	Sales Expense Accounts 912 to 913	EXP9123	1.00000	0.60009	0.04454	0.00000	0.05705	0.08568	0.06478
16	Acct 367 Mains and Acct 380 Services	PLT36780	1.00000	0.61266	0.05223	0.00000	0.06785	0.08193	0.06402
17	Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
18	Acct 380,381,382 & 383 - Serv Met & Reg	PLT3803	1.00000	0.69472	0.10511	0.00000	0.07897	0.04540	0.02283
19	Transm & Distr Oper Accts 851 to 879	EXP8519	1.00000	0.57747	0.04985	0.00000	0.06949	0.10339	0.06427
20	Total Customer Deposits	TOTCDEP	1.00000	0.01228	0.00050	0.00000	0.32576	0.30255	0.08000
21	Acct 386 Other Property on Cust's Prem	PLT386	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
22	Total Transmission & Distribution Plant	DISTRPLT	1.00000	0.60725	0.05497	0.00000	0.06908	0.08612	0.06139
23	Acct 904-Uncollectible Accts-Gas Sales	EXP904S	1.00000	0.72642	0.10931	0.00000	0.09991	0.02817	0.00373
24	Acct 904-Uncollectible Accts-Other Rev	EXP904O	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
25	Acct 367-Gas Mains - Bare Steel	PLT367BS	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
26	Acct 367-Gas Mains - Joint Clamping	PLT367JC	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
27	Acct 367-Gas Mains - Cast Iron	PLT367CI	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
28	Acct 367-Gas Mains - Cathodic Protect	PLT367CP	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
29	Acct 367-Gas Mains - Coated Steel	PLT367CS	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
30	Acct 367-Gas Mains - Plastic	PLT367P	1.00000	0.52906	0.01014	0.00000	0.06024	0.12251	0.09586
31	Acct 391-Office Equipment	PLT391OE	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
32	Acct 391-Office IT Equipment	PLT391IT	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
33	Acct 397-Comm Equip MetScan	PLT397M	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
34	Acct 397-Comm Equip ERT/ITRON	PLT397E	1.00000	0.60958	0.09388	0.00000	0.08120	0.09576	0.02812
35	Acct 304 Lnd Rights-LNG & LPG Dir Csts	PLT304L	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
36	Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
37	Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	1.00000	0.64875	0.00653	0.00000	0.07812	0.12589	0.06311
38	Total Gas Operation & Maintenance Labor	OMLAB	1.00000	0.62555	0.06067	0.00000	0.07118	0.08437	0.05170
39	Inflation Adjustment Residual O&M	OTHOMINF	1.00000	0.61956	0.05662	0.00000	0.07076	0.08734	0.05430

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 179 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 180 of 322

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-39		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Acct 929-Duplicate Charges-Cr	EXP929	0.00000	0.00000	0.00000	0.00000	0.00000
2	Acct 930-Miscellaneous General Exp	EXP930	0.00866	0.01434	0.02483	0.02038	0.03300
3	Acct 931 Rents	EXP931	0.00506	0.02139	0.03556	0.01824	0.01909
4	Acct 932 Maintenance of General Plant	EXP932	0.00984	0.01492	0.02897	0.02285	0.03744
5	Total LPG Gas Operating Labor	TLABPO	0.01413	0.00543	0.01828	0.01391	0.02586
6	Tot LPG Gas Maintenance Labor	TLABPM	0.01413	0.00543	0.01828	0.01391	0.02586
7	Total LNG Gas Operating Labor	TLABLO	0.01413	0.00543	0.01828	0.01391	0.02586
8	Tot LNG Gas Maintenance Labor	TLABLM	0.01413	0.00543	0.01828	0.01391	0.02586
9	Total Transm & Distr Operating Labor	TLABDO	0.01127	0.01608	0.03499	0.02750	0.04424
10	Total Transm & Distr Maintenance Labor	TLABDM	0.01302	0.01192	0.02757	0.02869	0.05149
11	Total Customer Accounts Labor	TLABCA	0.00255	0.01484	0.01216	0.00661	0.01012
12	Total Sales Expense Labor	TLABSA	0.00984	0.01115	0.02497	0.02658	0.05558
13	Total General Plant	GENPLT	0.00984	0.01492	0.02897	0.02285	0.03744
14	Claimed Sales Revenues less Gas Costs	REVCLAIM	0.00866	0.01434	0.02483	0.02038	0.03300
15	Sales Expense Accounts 912 to 913	EXP9123	0.01359	0.01019	0.02838	0.03145	0.06427
16	Acct 367 Mains and Acct 380 Services	PLT36780	0.01193	0.01152	0.02402	0.02653	0.04731
17	Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	0.00200	0.02599	0.04103	0.01536	0.00708
18	Acct 380, 381, 382 & 383 - Serv, Met & Reg	PLT3803	0.00119	0.01838	0.01839	0.01027	0.00476
19	Transm & Distr Oper Accts 851 to 879	EXP8519	0.01173	0.01543	0.03425	0.02802	0.04611
20	Total Customer Deposits	TOTCDEP	0.02799	0.07895	0.12824	0.03832	0.00539
21	Acct 386 Other Property on Cust's Prem	PLT386	0.02009	0.00851	0.03429	0.03992	0.07936
22	Total Transmission & Distribution Plant	DISTRPLT	0.01117	0.01317	0.02679	0.02592	0.04415
23	Acct 904-Uncollectible Accts-Gas Sales	EXP904S	0.00009	0.01993	0.01055	0.00150	0.00040
24	Acct 904-Uncollectible Accts-Other Rev	EXP904O	0.02009	0.00851	0.03429	0.03992	0.07936
25	Acct 367-Gas Mains - Bare Steel	PLT367BS	0.02009	0.00851	0.03429	0.03992	0.07936
26	Acct 367-Gas Mains - Cathodic Protect	PLT367CP	0.02009	0.00851	0.03429	0.03992	0.07936
27	Acct 367-Gas Mains - Cast Iron	PLT367CI	0.02009	0.00851	0.03429	0.03992	0.07936
28	Acct 367-Gas Mains - Coated Steel	PLT367CS	0.02009	0.00851	0.03429	0.03992	0.07936
29	Acct 367-Gas Mains - Plastic	PLT367P	0.02009	0.00851	0.03429	0.03992	0.07936
30	Acct 391-Office Equipment	PLT391OE	0.01057	0.01389	0.02784	0.02355	0.04027
31	Acct 391-Office IT Equipment	PLT391IT	0.01057	0.01389	0.02784	0.02355	0.04027
32	Acct 397-Comm Equip MetScan	PLT397M	0.00200	0.02599	0.04103	0.01536	0.00708
33	Acct 397-Comm Equip ERT/ITRON	PLT397E	0.00200	0.02599	0.04103	0.01536	0.00708
34	Acct 304 Lnd Rights-LNG & LPG Dir Csts	PLT304L	0.01413	0.00543	0.01828	0.01391	0.02586
35	Acct 305 St & Imp-LNG & LPG Dir Csts	PLT305L	0.01413	0.00543	0.01828	0.01391	0.02586
36	Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	0.01413	0.00543	0.01828	0.01391	0.02586
37	Total Gas Operation & Maintenance Labor	OMLAB	0.00944	0.01429	0.02643	0.02137	0.03554
38	Inflation Adjustment Residual O&M	OTHOMINF	0.01019	0.01379	0.02675	0.02247	0.03822

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-39		ALLOC	TOTAL COMPANY INPUT
1	Acct 929-Duplicate Charges-Cr	EXP929	Page 14, Line 8
2	Acct 930-Miscellaneous General Exp	EXP930	Page 14, Line 12
3	Acct 931 Rents	EXP931	Page 14, Line 18
4	Acct 932 Maintenance of General Plant	EXP932	Page 14, Line 22
5	Total LPG Gas Operating Labor	TLABPO	Page 19, Line 5
6	Tot LPG Gas Maintenance Labor	TLABPM	Page 19, Line 9
7	Total LNG Gas Operating Labor	TLABLO	Page 19, Line 17
8	Tot LNG Gas Maintenance Labor	TLABLM	Page 19, Line 21
9	Total Transm & Distr Operating Labor	TLABDO	Page 20, Line 10
10	Total Transm & Distr Maintenance Labor	TLABDM	Page 20, Line 19
11	Total Customer Accounts Labor	TLABCA	Page 21, Line 4
12	Total Sales Expense Labor	TLABSA	Page 21, Line 9
13	Total General Plant	GENPLT	Pg 4, Ln 3 & 17
14	Claimed Sales Revenues less Gas Costs	REVCLAIM	See Allocator Descriptions
15	Sales Expense Accounts 912 to 913	EXP9123	Pg 12, Ln 28 & 32
16	Acct 367 Mains and Acct 380 Services	PLT36780	Pg 3, Ln 11 & 14
17	Acct 381, 382 & 383 - Meters & Hse Reg	PLT3813	Pg 3, Line 15, 16 & 17
18	Acct 380,381,382 & 383 - Serv.Met & Reg	PLT3803	Pg 3, Line 14, 15, 16 & 17
19	Transm & Distr Oper Accts 851 to 879	EXP8519	Pg 11, Line 2 to 7
20	Total Customer Deposits	TOTCDEP	Page 7, Line 23
21	Acct 386 Other Property on Cust's Prem	PLT386	Page 3, Line 21
22	Total Transmission & Distribution Plant	DISTRPLT	Page 3, Line 23 & 25
23	Acct 904-Uncollectible Accts-Gas Sales	EXP904S	Pg 12, Line 9 to 19
24	Acct 904-Uncollectible Accts-Other Rev	EXP904O	Page 12, Line 22 & 23
25	Acct 367-Gas Mains - Bare Steel	PLT367BS	Page 3, Line 4
26	Acct 367-Gas Mains - Joint Clamping	PLT367JC	Page 3, Line 5
27	Acct 367-Gas Mains - Cast Iron	PLT367CI	Page 3, Line 6
28	Acct 367-Gas Mains - Cathodic Protect	PLT367CP	Page 3, Line 7
29	Acct 367-Gas Mains - Coated Steel	PLT367CS	Page 3, Line 8
30	Acct 367-Gas Mains - Plastic	PLT367P	Page 3, Line 9
31	Acct 391-Office Equipment	PLT391OE	Page 4, Line 4
32	Acct 391-Office IT Equipment	PLT391IT	Page 4, Line 5
33	Acct 397-Comm Equip Metiscan	PLT397M	Page 4, Line 13
34	Acct 397-Comm Equip ERT/ITRON	PLT397E	Page 4, Line 14
35	Acct 304 Lnd Rights-LNG & LPG Dir Csts	PLT304L	Page 2, Line 6 & 7
36	Acct 305 St & Impr-LNG & LPG Dir Csts	PLT305L	Page 2, Line 10 & 11
37	Acct 320 Other Eq-LNG & LPG Dir Csts	PLT320L	Page 2, Line 15 & 16
38	Total Gas Operation & Maintenance Labor	OMLAB	Page 22, Line 15
39	Inflation Adjustment Residual O&M	OTHOMINF	See Allocator Descriptions

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-40		ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
1	Total Gas Supply Expense	GASCOSTS	1.00000	0.67732	0.01704	0.00001	0.06498	0.10636	0.04729
2	Acct 903-Cust Records & Coll Subtotal	EXP903T	1.00000	0.72167	0.09667	0.00000	0.07712	0.03799	0.01724
3									
4									
5									
6									
7									
8									
9									
10									
11	<u>NISource Service Charges Allocators</u>								
12	Basis 1 - 50% Gross Plant	BASIS1P	1.00000	0.60903	0.05364	0.00000	0.06949	0.08768	0.06086
13	Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	1.00000	0.63593	0.06585	0.00000	0.07527	0.07844	0.04583
14	Basis 10 - Number of Annual Customers	BASIS10	1.00000	0.78471	0.11808	0.00004	0.05910	0.01686	0.00220
15	Basis 11 - Labor	BASIS11	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
16	Basis 2 - Gross Plant	BASIS2	1.00000	0.60903	0.05364	0.00000	0.06949	0.08768	0.06086
17	Basis 20 - Total Direct Billed	BASIS20	1.00000	0.62785	0.06055	0.00000	0.07038	0.08141	0.05222
18	Basis 7 - 50% Deprec Plant	BASIS7P	1.00000	0.60885	0.05360	0.00000	0.06946	0.08756	0.06108
19	Basis 7 - 50% O&M less NIS 923	BASIS7OM	1.00000	0.66965	0.02608	0.00001	0.06689	0.10119	0.04702
20	Basis 9 - Labor	BASIS9	1.00000	0.61288	0.05523	0.00000	0.07008	0.08952	0.05617
21	Basis Co 12 - Oth NISource Serv Chrgs	BASCO12	1.00000	0.65050	0.06852	0.00000	0.06925	0.07226	0.04498
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 182 of 322

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

INTERNALLY DEVELOPED CONT-40		ALLOC	HIGH WINTER LRG HI ANNUAL G-43 & T-43	LOW WINTER LOW ANNUAL G-50 & T-50	LOW WINTER MED ANNUAL G-51 & T-51	LOW WINTER HIGH ANNUAL G-52 & T-52	LOW WINTER LRG HI ANNUAL G-53 & T-53
1	Total Gas Supply Expense	GAS COSTS	0.01207	0.01183	0.03671	0.01785	0.00854
2	Acct 903-Cust Records & Coll Subtotal	EXP903T	0.00284	0.01517	0.01282	0.00722	0.01125
3							
4							
5							
6							
7							
8							
9							
10							
11	NISource Service Charges Allocators:						
12	Basis 1 - 50% Gross Plant	BASIS1P	0.01117	0.01304	0.02667	0.02530	0.04310
13	Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	0.00839	0.01506	0.02470	0.01908	0.03145
14	Basis 10 - Number of Annual Customers	BASIS10	0.00005	0.01179	0.00624	0.00089	0.00024
15	Basis 11 - Labor	BASIS11	0.01057	0.01389	0.02784	0.02355	0.04027
16	Basis 2 - Gross Plant	BASIS2	0.01117	0.01304	0.02667	0.02530	0.04310
17	Basis 20 - Total Direct Billed	BASIS20	0.00962	0.01378	0.02538	0.02186	0.03694
18	Basis 7 - 50% Deprec Plant	BASIS7P	0.01120	0.01300	0.02661	0.02539	0.04324
19	Basis 7 - 50% O&M less NIS 923	BASIS7OM	0.01138	0.01243	0.03449	0.01808	0.01279
20	Basis 9 - Labor	BASIS9	0.01057	0.01389	0.02784	0.02355	0.04027
21	Basis Co 12 - Oth NISource Serv Chrgs	BASCO12	0.00820	0.01359	0.02267	0.01878	0.03126
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

29-Jun-05 10:27 AM

TOTAL COMPANY
INPUT

ALLOC

INTERNALLY DEVELOPED CONT-40

1	Total Gas Supply Expense	GASCOSTS	Page 10 , Line 7
2	Acct 903-Cust Records & Coll Subtotal	EXP903T	Pg 12 , Line 3 to 5
3			
4			
5			
6			
7			
8			
9			
10			
11	<u>NiSource Service Charges Allocators</u>		
12	Basis 1 - 50% Gross Plant	BASIS1P	Page 4 , Line 18
13	Basis 1 - 50% O&M less Gas & NIS 923	BASIS1OM	See Allocator Descriptions
14	Basis 10 - Number of Annual Customers	BASIS10	Page 26 , Line 31
15	Basis 11 - Labor	BASIS11	Page 26 , Line 31
16	Basis 2 - Gross Plant	BASIS2	Page 22 , Line 21
17	Basis 20 - Total Direct Billed	BASIS20	Page 4 , Line 18
18	Basis 7 - 50% Deorec Plant	BASIS7P	Page 13 , Line 28
19	Basis 7 - 50% O&M less NIS 923	BASIS7OM	See Allocator Descriptions
20	Basis 9 - Labor	BASIS9	See Allocator Descriptions
21	Basis Co 12 - Oth NiSource Serv Chrgs	BASCO12	Page 22 , Line 21
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

29-Jun-05 10:27 AM

ALLOC	TOTAL COMPANY	RESIDENTIAL HEATING R-3 & R-4	RESIDENTIAL NON-HEATING R-1 & R-2	OUTDOOR LIGHTING	HIGH WINTER LOW ANNUAL G-40 & T-40	HIGH WINTER MED ANNUAL G-41 & T-41	HIGH WINTER HIGH ANNUAL G-42 & T-42
	1.00000	0.67571	0.02263	0.00001	0.06674	0.09792	0.04663

INTERNALLY DEVELOPED CONT-41

REVENUES FROM GAS SALES

1 Revenues Firm Sales of Gas

2
3
4
5
6
7
8
9
10

BAY STATE GAS COMPANY
GAS COST OF SERVICE STUDY
12 MONTHS ENDED DECEMBER 31, 2004

Bay State Gas Company
D.T.E. 05-27
Attachment AG-22-44(1)
Page 186 of 322

29-Jun-05 10:27 AM

ALLOC HIGH WINTER LOW WINTER LOW WINTER LOW WINTER
LRG HI ANNUAL LOW ANNUAL MED ANNUAL HIGH ANNUAL
G-43 & T-43 G-50 & T-50 G-51 & T-51 G-52 & T-52
G-53 & T-53

INTERNALLY DEVELOPED CONT-41

REVENUES FROM GAS SALES
Revenues Firm Sales of Gas

1 0.01024 0.01207 0.03184 0.01883 0.01738

2
3
4
5
6
7
8
9
10

29-Jun-05 10:27 AM

ALLOC TOTAL COMPANY
INPUT

INTERNALLY DEVELOPED CONT-41

REVENUES FROM GAS SALES

1 Revenues Firm Sales of Gas

2
3
4
5
6
7
8
9
10